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ABSTRACT

Described as the region of the 21st century, the Asian Pacific area is an important subject of geographic research. Thirty-four papers focusing on the Asian Pacific countries are contained in this document. Divided into four sections, the presentations cover the following topics: (1) Geography Teaching IN Asia Pacific Countries; (2) Teaching ABOUT Asia Pacific Countries; (3) Perceptions of Asia Pacific Countries; and (4) General Papers. A list of symposium participants also is included. A paper, "The High School Students' Geographical Competitions in Poland' by Maria Magdalena Wilczynska-Woloszyn is attached. (DB)

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TEACHING GEOGRAPHY IN AND ABOUT ASIAN PACIFIC COUNTRIES

International Geographical Union
Geographical Education Commission

Papers presented to the Symposium

Hong Kong, August 6-10, 1990

Edited by Philip Stimpson and Tammy Y.L Kwan

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TEACHING GEOGRAPHY IN AND ABOUT ASIAN PACIFIC COUNTRIES

AN INTRODUCTION

The Asia Pacific Region has been described as the region of the 21st century (The Guardian, 22 June 1989). Whether this is journalistic hype, or the nations of the region employed in self publication, or whether Asia Pacific will be of greater significance than say Europe or the Atlantic Seaboard of North America is irrelevant; indeed it is possibly unhealthy at a time when we need to emphasise global interdependence. What seems undeniable is that during the last three decades, Asia Pacific has been an area of rapid change -demographically, socially, economically and sometimes sadly environmentally.

Geographers will no doubt debate definitions of the Asia Pacific region. This is an important issue particularly in research studies as how otherwise can results and trends be compared. However I suspect that we will never obtain complete agreement. Some writers view Asia Pacific as largely synonymous with the Pacific Rim in which more than 1/2 of the world's population resides (2.4 billion) generating 1/3 of the world's trade. I see Asia Pacific in a more restricted way as that area encompassing the Western Pacific. It includes the countries and peoples stretching from the Pacific Soviet Union, Korea and Japan through China and the Philippines to Vietnam, Thailand, Malaysia, Singapore, Indonesia and the many Pacific island communities.

Demographically Asia Pacific has been an area of sustained population growth. Within the region lies China the most populous country on earth which, despite strenuous efforts, still faces enormous overpopulation. It is not, however, alone in the region in having to tackle such difficulties as the Philippines and Indonesia in particular continue to exhibit high birth rates and population growth rates of nearly 3% per annum. Whilst the birth rates in some Asian Pacific countries such as Japan, Singapore and Hong Kong are falling, the dominant characteristic of the populations in the region is their youth. This in itself has created tensions in societies where generally held respect for ones elders has come into conflict with a young often idealistic group of people seeking change. One of the major demographic features of the region is migration particularly in respect of Chinese people who are on the move within the region and to more distant venues. It is estimated that upto 30 million people of chinese decent live in Pacific Rim countries other than their homeland. However, the chinese are not the only people on the move with large numbers of Vietnamese, Filipinos and Japanese living outside their native countries. These migrations at times give rise to tensions but they are indicative of the spatial variation in economic strength within the region.

Economically as well as demographically Asia Pacific is typified by growth. This began with Japan in the 1960s and was succeeded by the "Four Little Dragons" of Hong Kong, Korea, Singapore and Taiwan in the "70s and '80s. In turn their rate of GDP growth is being overtaken by new hot spots such as Indonesia, Malaysia, the Philippines, Thailand and possibly China.

Economic growth, however, has also brought attendant environmental problems. It is generally found that pollution increases in direct proportion with increases in GDP and Asia Pacific is no exception. For example in Hong Kong over the last two decades, GDP has increased by 300% and so have wastes. Environmental awareness is vital for all our lives both in the region and outside. For people in the region, where average living standards have been desperately low in the past and continue to be in some countries, the provision of food, clothing and shelter have been the most critical. Governments have perceived a need for development at any price. Laissez faire planning policies and minimal environmental regulation have been seen as the necessary prerequisites to attract industry and economic growth. Past follies are now becoming evident; for example Hong Kong has the dubious record of the world's largest prolonged "red tide". Taiwan, Japan, China, Korea and Thailand all face major problems. The people of the region can no longer afford to ignore the state of the environment. Environmental awareness is not a luxury but essential for our continued existence. Most countries in the region are making efforts. For example Hong Kong contains one of the major wetland reserves in the gei wai of the Mai Po marshes in the norther New Territories. The WWF which administers much of it with the Agriculture and Fisheries Department provides conservation training for specialists from throughout the region. However the "man in the street" and in particular the business community still often act in an irresponsible manner. The environment is not sufficiently valued at a time when its health is threatened.

The changing socio-economic and environmental situation in the region highlights the need for geographical education. It pushes into prominence the need for people outside the region to understand what is going on Asia Pacific, where differences and similarities occur, why they occur, how they may develop and, most importantly, how they ought to change and what are the preconditions for this to happen. People within the region need to understand their surroundings, to realise the inter-relatedness of the part of the world they occupy and to appreciate that changes to one part may have repercussions elsewhere. It is with these ideas that the title of our symposium -**Teaching Geography In and About Asian Pacific Countries**- was proposed.

Our symposium has three main sections. The first will look at aspects of the teaching of geography **IN** the region. The strength of geography in the schools of the region is variable and it nature diverse. For example, in the Philippines geography is subsumed within a social studies framework whereas in Singapore, Hong Kong and Japan it has its own place in the curriculum. In Japan the approach is largely regional and geography teachers are concerned about concept development whereas in Hong Kong the approach is more systematic and the worry is about children's locational knowledge. These examples are highlighted to emphasise the interest in geographical education in the region and the papers focus on general curriculum content issues and matters of teaching approach.

The second section examines how people outside the region teach **ABOUT** Asian Pacific countries. In particular it looks at the specific countries and themes which are looked at. This raises questions about the images which we may be building the minds of our pupils and in particular the problem of stereotyping. This is examined in the third section in which we look at the **Perception** of Asian Pacific countries held in different parts of the world. The final section consists of general papers on current matters of concern.

Symposium Committee

Fung Yee-wang Tammy Kwan Yim-lin, Philip Stimpson, Betty Yau Lai-ling

Hong Kong, 1990

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Teaching Geography

IN

Asian Pacific Countries

A COMPARATIVE STUDY OF GEOGRAPHY CURRICULA IN HONG KONG AND CHINA WITH REFERENCE TO THEIR CONTRIBUTION TOWARDS ENVIRONMENTAL EDUCATION

Yee-wang Fung and John Lee
Hong Kong

Introduction

In the past forty years, the development of geographical education in Hong Kong and China has been strongly influenced by politico-economic factors as well as social-cultural traditions. Differences in politico- economic conditions and social-cultural backgrounds in these two places have led to divergencies in their development of geographical education.

The political condition in Hong Kong has been relatively stable in the past forty years and as a result there has been a steady development in geographical education. In the fifties, when the colonial climate still prevailed in Hong Kong, the transmission of knowledge and the training of skills were emphasized in the geography curriculum. However, with a more open society and the emergence of "the 1997 question" since the eighties, the role of civic education in the geography curriculum has been strengthened. In the early years of the founding of the People's Republic of China, the political condition of the country was rather stable, which had an impact on her geographical education in secondary schools. At that time the curriculum laid equal emphases on knowledge, skill and attitude. Unfortunately, during the two major political movements, namely the Great Leap Forward and the Cultural Revolution, geographical education was utterly shattered. The number of geography periods was reduced and the curriculum was distorted. The affective aspect of geography was so emphasized that geographical education degenerated into mere political propaganda (Fung,1988)

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Today, China's open policy has brought her geographical education back to its right track and enabled it to develop steadily.

Education Systems and Geography Curricula

The structure of the education system in Hong Kong basically follows the British model. The system comprises six years of primary education, three years of junior secondary education (S1-3), two years of senior secondary education (S4-5), two years of sixth form education and three years of university education. Both the curriculum and the time-table are decided by individual schools, and the Education Department only plays an advisory role in these matters. Geography is not a compulsory subject at the secondary level. At present, about 80% of the junior secondary school pupils study geography. The rest do social studies, a subject which integrates geography, history, health education and government and public affairs. The senior secondary school pupils in Hong Kong are usually grouped into arts, science and commercial streams. It is estimated that 40%-50% of the senior secondary school pupils are studying geography. Schools in Hong Kong usually have a five-day week with eight 40-minute or nine 35-minute periods a day and devote four periods a week to geography at the S4 and S5 levels (Fung and Lee, 1989).

In spite of the many attempts to change the structure of the education system in China in the past forty years, it largely remains as it was before the Second World War. The system basically follows the American model which includes six years of primary education, three years of junior middle schooling (JM1 - JM3), three years of senior middle schooling (SM1 - SM3) and four years of university education. The school curriculum is nationwide and is centrally controlled by the State Education Commission. Geography is a compulsory subject in secondary education, but is only taught in JM1, JM2 and SM2. Schools in China normally have a six-day week with five 45-minute periods a day and devote two periods a week to geography at the SM2 level. It may be noted that a new measure has recently been introduced which requires Arts pupils to do two to three periods of world and economic geography a week at the SM3 level, but no standard textbook has yet been produced for this course.

The emergence of new concepts in geographical education in the West brought about major changes in school geography curricula in Hong Kong and China in the seventies and eighties. In Hong Kong the implementation of a new Advanced-level curriculum in 1979 was followed by the introduction of new curricula for S1-3 and S4-5 in 1986 and 1987 respectively. In China, a new set of geography textbooks for secondary school pupils was issued in 1984. It is interesting to note that all these new curricula place much emphasis on environmental education. Thus the geography syllabus for Forms 4-5 in Hong Kong (CDC 1984) states, "Geography encourage students to observe, ask questions and seek answers. They should develop a wide range of skills and techniques concerned with the collection, organization, presentation, interpretation and evaluation of information about the world. They should be aware of the need for, and be committed to, responsible action where aesthetic and moral questions arise in relation to the maintenance of a balanced environment." And the preface of the geography textbook for SM2 in China (Renmin Jiaoyu Press, 1984) writes, "The guiding spirit of this book is to provide the pupil with a fundamental knowledge of the environment from the viewpoint of man-land relations, with a view to helping him to arrive at a basic understanding of a reasonable way of using, reforming and protecting the environment, to draw on the good and avoid pitfalls, and to enable the environment to develop toward the direction beneficial to human production and human life."

The new concept-based curriculum for Secondary 4 and 5 in Hong Kong stresses the interrelationship between man and his environment. In expounding the various geographical concepts in the examination, the pupils are expected to quote local examples together with examples from China, Japan and Australia, countries which are familiar to them and which have a strong impact upon their daily lives. Since the pupils do not have to contend with such a wide scope of study in terms of area, it is hoped that they may feel less burdened and become more active in their study of geography. The emphasis on the man-land relationship is also intended to exert a positive influence upon the development of their attitudes towards the environment. The geography syllabus for senior middle schools in China is also developed from the viewpoint of man-land relations, but it adopts a systematic approach in organizing the content which covers the basic concepts and patterns of different geographical environments, problems arising from man-land interaction and their solutions. The contents of the current geography curricula for senior secondary schools in Hong Kong and China are listed in Table 1. A closer look at the table reveals that the following themes which are included in the syllabus for China are not covered in the syllabus for Hong Kong: (A) the earth in the universe; (E) living organisms, soils and natural regions; (K) man and environment. In contrast, only one theme which is covered in the syllabus for Hong Kong is not

Hong Kong		China	
Themes	Recommended No. of periods	Themes	Recommended No. of periods
A. Land		A. The Earth in the Universe	8
(1) Landforms	37	B. The Atmosphere	9
(2) Weather and climate	18	C. The Hydrosphere	6
(3) Ecosystems	6	D. The Earth's Crust and Its Changes	9
B. Population		E. Living Organisms, Soils and Natural Regions	5
(1) Factors affecting growth and size	3	F. Natural Resources and Their Conservation	5
(2) Composition and structure	3	G. Energy Resources and Their Utilization	5
(3) Distribution	3	H. Agricultural Production and Food Problems	5
(4) Problems and solutions	3	I. Industrial Production and Distribution	5
C. Man-land Relationships		J. Population and Urbanization	5
(1) Agricultural activities	19	K. Man and Environment	2
(2) Manufacturing activities	14		
(3) Urban settlements	18		
D. Issues Arising from Man-land Interaction			
(1) Natural hazards	10		
(2) Energy resources	7		
(3) Urban problems	8		
(4) Pollution	7		
(5) Recreation	4		
Total:	160	Total:	64

Table 1: A Comparison of the geography syllabuses for senior secondary schools in Hong Kong and China

included in the syllabus for China, which is: (D5) recreation. Finally, it is obvious that the themes which are covered by both syllabuses are treated more fully in Hong Kong than in China, as more time is available.

Teaching materials for geography are not restricted to textbooks and atlases. They also include specimens, models, reference books, movies, video tapes, slides, transparencies, pictures, cassette tapes, etc. Until the mid-1970s, geography teachers in Hong Kong depended heavily upon textbooks and atlases. The situation has slightly improved in recent years. Many teachers now frequently make use of video tapes and transparencies in geography lessons. They are also encouraged to design their own teaching units and produce their own teaching materials (Education Department, 1988a and 1988b). All these changes are the result of the advancement of educational technology, the general improvement of school facilities and the enhancement of teachers' qualities (Fung and Lee, 1989). The situation in China today closely resembles that of Hong Kong before the seventies. Although Hong Kong teachers enjoy much more freedom in the choice and use of textbooks than their counterparts in China, they still rely rather heavily on this type of material in classroom teaching. For this reason, the present writers propose to examine in some detail the geography textbooks used by senior secondary school pupils in Hong Kong and China in assessing the contribution of the geography curricula to environmental education.

Contribution of Geography Curricula to Environmental Education

Environmental education is a relatively new term that has various shades of meaning. This is not surprising as the definition of 'environment' varies with disciplines. An often quoted working definition (DES, 1981 p.6) is:

> "Environmental education is the process of recognising values and clarifying concepts in order to develop skills and attitudes necessary to understand and appreciate the inter-relatedness among man, his culture, and his biophyical surroundings. Environmental education also entails practice in decision making and self-formulation of a code of behaviour about issues concerning environmental quality."

Three classes of environmental education have been identified by Lucas, namely, education **'about'** the environment,**'in'** the environment and **'for'** the environment (Linke, 1979). Education 'about' the environment refers to the environment as a subject for investigation and involves the provision of information on environmental issues and the teaching of appropriate technical and intellectual skills. Education 'in' (or 'through') the environment is the use of real-life situation as a basis for inquiry learning. Education 'for' the environment is the issue of assisting more actively the preservation and improvement of the environment, inculcating attitudes of concern for the features of the environment that enhance the quality of life or which are deemed to possess intrinsic values, and creating a predisposition towards committed action that is consistent with those attitudes.

In the present study, only the contribution of geography textbooks to education 'for' the environment is examined. The technique of content analysis is employed. Since there is only one set of geography textbooks for senior middle schools in China, there is no choice. For Hong Kong, the set entitled 'New Geography 4 & 5 (Bunnett & Massingham, 1987a and 1987b), which is the most popular amongst Hong Kong schools, is used.

Content analysis involves three basic coding or classification procedures: (1) the definition of content categories, (2) the determination of appropriate classification units and (3) the selection of suitable quantitative (or qualitative) methods. An expression of concern 'for' the environment is chosen as the attribute for content category and the basic classification unit is sentence. The number of words used in each sentence expressing a concern for the environment as well as the number of words in individual chapters are counted so that the percentage of words used to promote environmental education can be calculated.

Education 'for' the environment covers mainly the affective aspects of concern for the quality of human life and commitment to environmental conservation. The latter refers to long-term management and beneficial use of natural resources which are conducive to public benefit, welfare, safety or health (Linke, 1979). Sentences will be considered as having expressed a concern for the environment if they express:

(1) concern for the implications of mismanagement of man's impact on the natural environment;
(2) concern for the improvement of human settlements and health;
(3) concern for the beneficial use of fresh water, land and energy resources;
(4) concern for harmonising development goals and social and cultural values with environmental quality objectives;

(5) concern for the protection of living resources and of the ocean, and avoidance of inadvertent climate modification; and

(6) attitude of conviction for, or dedication to, maintaining and improving the quality of life for both the present and future generations.

The results of content analysis show that geography textbooks in China put a greater emphases on education 'for' the environment compared with those in Hong Kong (Table 2). 'Natural Resources and their Conservation', 'Population and Urbanization' and 'Man and Environment' are some of the topics in Chinese geography textbooks which devote a large proportion of space (i.e. words) to providing knowledge of the environment and cultivating a concern for the quality of life and commitment to environmental conservation. However, only the part on 'Issues Arising from Man-land Interaction' in Hong Kong geography textbooks emphasizes such values and attitudes as appreciation of home environment, awareness of environmental limitations and problems, awareness of interdependence of peoples and need for co-operation, respect and responsibility for the quality of the environment, awareness of the need for planned use and conservation of resources and recognition of the effect of value judgements on environmental decision-making. While the chapters on weather and climate, landforms, agricultural activities and manufacturing activities in Hong Kong geography textbooks put little emphasis on education 'for' the environment, there is only one chapter in the Chinese geography textbooks, that is, the chapter entitled 'The Earth in the Universe', which makes no reference to education 'for' the environment.

The relatively more adequate and balanced treatment of environmental education exhibited in Chinese geography textbooks may be partially attributed to the presence of clearly stated aims of geographical education in China which are highly politico-moral in nature. The dominant educational and political ideologies in China have been coherently developed under the umbrella of Marxist-Leninism, internationalism and patriotism (Diao and Gao, 1987). The geography syllabus in Hong Kong, on the other hand, lacks clearly stated educational and political aims and this may account for the messages pertaining to environmental education being less adequate and coherent in her geography textbooks.

Moreover, the systematic approach focuses on the study of the locational characteristics of particular features and the Chinese geography textbooks have been written in such a way that they resemble academic systematic studies more than a sub-division of

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C	Title	W	TW	%
4.1	Some concepts and skills in geography	0	2368	0
4.2	Mountain-building process and mountains	0	6558	0
4.3	Rocks	0	3070	0
4.4	Denudation	147	7510	1.96
4.5	Rivers and their systems	82	5621	1.46
4.6	Coasts: process and landforms	50	4328	1.16
4.7	The atmosphere: weather and climate	0	1204	0
4.8	Temperature: causes and effects	58	3605	1.61
4.9	Pressure and winds	0	5300	0
4.10	Water in the air	150	4465	3.36
4.11	World Climate	0	2545	0
4.12	The Climate of Hong Kong	0	2300	0
4.13	Interpretation of Hong Kong weather charts	0	2647	0
4.14	Ecosystems	1180	5187	22.75
4.15	Natural hazards	2012	10200	19.73
4.16	Energy resources	3508	11565	30.33
5.1	Factors affecting pop. growth and pop. size	0	1937	0
5.2	Composition and structure of population	0	2131	0
5.3	Population distribution	0	1952	0
5.4	Population problems and solutions	525	1970	26.65
5.5	Farming systems	124	8996	1.38
5.6	Intensive and extensive farming	0	3671	0
5.7	Overcoming constraints to farming	232	3918	5.92
5.8	Factors affecting industrial location	0	4236	0
5.9	Changes in industrial development	0	8097	0
5.10	Urban places and urban process	0	3560	0
5.11	Urban landuses	0	5846	0
5.12	Functions of urban centres	0	3432	0
5.13	Urban problems	2364	7635	30.96
5.14	Pollution	4315	5136	84.01
5.15	Recreation	1799	4147	43.38
	Total	16546	145137	11.40

C = chapter number; W = number of words used in sentences expressing a concern for environmental education in each chapter; TW = total number of words in each chapter; % = W/TW x 100%.

Table 2a An analysis of the emphasis placed on environmental education in a set of senior secondary school geography textbooks published in Hong Kong

C	Title	W	TW	%
1	The earth in the universe	0	9570	0
2	The atmosphere	1307	12340	10.59
3	The hydrosphere	1149	8905	12.90
4	The earth's crust and its changes	816	13755	5.93
5	Living organisms, soils and natural regions	843	8730	9.66
6	Natural resources and their conservation	4264	8970	47.54
7	Energy resources and their utilization	1417	8200	17.28
8	Agricultural production and food problems	2203	11215	19.64
9	Industrial production and distribution	1448	11635	12.45
10	Population and urbanization	2072	9225	22.46
11	Man and environment	3004	4290	70.02
	Total	18523	106835	17.34

Explanatory notes as in Table 2a.

Table 2b: An analysis of the emphasis placed on environmental education in a set of senior secondary school geography textbooks published in China

systematic studies in school geography (Boden, 1976; Jing, 1988). Sub-sections such as 'Influence of Climate upon Human Activities' and 'Impact of Human Activities upon Climate' in the chapter on 'The Atmosphere'are typical examples to bear out this point. The concept-based approach in Hong Kong geography textbooks, however, involves the elucidation of many geographical concepts such as spatial distribution, spatial association, environmental system, environmental process, environmental quality, man as a an agent of change and others (CDC, 1984). Consequently, concepts such as environmental quality and man as a decision-maker are not elaborated in depth in many chapters which may account for the relatively 'fragmented' treatment of ideas pertinent to education 'for' the environment.

The two sets of geography textbooks also contrast in their emphasis on the commitment to environmental conservation. Hong Kong geography textbooks do try to encourage the pupils to change their habits so as to conserve energy resources (e.g. turn the lights off when they are not needed) or to maintain the quality of the environment (e.g. avoid littering) but not to the extent of adopting a green mode of life, thus manifesting the ideals of ecocentrism in environmentalism. The Chinese geography textbooks on the other hand tend to neglect the role of individuals in environmental conservation and decision-making but stress the importance of (1) population control and improvement of qualities of population, (2) national planning, management and legislation and (3) international co-operation, in protecting the world and home environments. This reflects the essence of internationalism and Marxist world outlook in connection with environmental education in which pupils can gain understanding of world environmental problems and in turn build up a sense of responsibility towards conserving the world resources and protecting the world environment.

Conclusion

The way external influences and new ideas are received in a society is to a large extent dependent on its cultural tradition. If the external influences and new ideas are in tune with the cultural tradition, they are more likely to be accepted, or even indiscriminately accepted. If not, they will be rejected. The educational and political ideas imported from the Soviet Union, such as emphases on teacher-centred approach, Marxist- Leninism and a historical and political sense were very much in tune with the Chinese cultural tradition. Although Hong Kong has a strong Chinese cultural background, one-and-a-half centuries of colonial governance and forty years or so of extensive contact with other countries around the world and exposure to their influences including ideas about curriculum development in school geography have helped to boost her development in geographical education. The differences in socio-cultural tradition and politico-economic background between Hong Kong and China have brought about divergencies in their geographical education with regard to objectives, contents, materials and methods.

**This article records only the personal views of Mr J.C.K. Lee which must NOT be taken as to represent the official views of the institution he serves, or those of the Education Department of Hong Kong.

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ASIAN GEOGRAPHICAL EDUCATORS' PERCEPTIONS AND PRACTICES

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Abstract

Much has been written about what geography is and how it should be taught. Most statements have been presented from the perceptions of university lecturers and data from the school perspective is needed. This study reports on a survey of geographical educators in four Asian countries - Japan, Hong Kong, Singapore and Thailand. The survey investigated perceptions of: the purpose of geography; aspects of geography which should be taught in schools; and practices used in normal geography lessons.There was considerable variation across the four countries but the results revealed that these educators believed that geography's main purpose is to explain how people in different parts of the world see, use and interact with their environment. In addition, most educators believed in the importance of studies in geography for: transmitting facts about the world; understanding environmental systems; developing skills; educating people to live effectively in the world; developing an empathy for other races, cultures and ways of life; and for learning to make wise decisions about using the environment. The educational practices used were mainly: transmission of knowledge and facilitating student learning.

Introduction

To what extent do geographical educators think about their discipline and to what extent do they use effective practices in their professional lives? These are two simple questions to which one could expect reasonable responses if the educational and cultural contexts of the geographical educators were known. They are also quite basic questions that should be asked if researchers are to understand the calibre of geographical educators who function in countries throughout the world.

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It is interesting to search around in the literature to find out to what extent that these basic questions have been pursued. In fact, what is noteworthy is the dearth of evidence to clarify these basic questions. It is quite easy to find syntheses of past practice and guidance for good ongoing practice in text/reference books for geographical educators,e.g. Bailey (1974); Ball, Steinbrink and Stoltman (1971); Boardman (1986); Fien, Gerber and Wilson (1989); Graves (1975); Hall (1976); Huckle (1983); Manson and Ridd (1977); Slater (1982) and Walford (1973). Similarly, statements of national intent in geographical education such as that by the Australian Geography Teachers' Association (1988) on the role of geography in secondary education give clear evidence of the approaches that are to be promoted in particular countries. Curriculum documents often include statements that state or imply the way that geography should be taught in schools. However, in none of these publications is there evidence that the inherent guidance and proposals for action are taken up by geographical educators. It is just possible that many of the main ideas in the above publications may fall on deaf ears and remain at the level of rhetoric.

A considerable amount of evidence exists on effective teaching practice. This evidence is of both a general nature and of specific reference to geography teaching. In general terms through the research findings by Ausubel(1968) into expository teaching, Bennett(1976) into progressive versus traditional learning, Flanders(1960) into 'direct' versus 'indirect' teaching and Galton and Simon(1980) into teaching style, a clearer understanding of the act of teaching can be obtained. Specifically in relation to geographical education, the international study co-ordinated by Stoltman (1976) in applying the Tuckman Student Perception of Teacher Style(SPOTS) rating system provided evidence of how students in seven countries perceived the way that they were taught geography and Naish(1988) synthesised recent findings on teaching styles in geography.

Many of the above-mentioned publications have been prepared by university lecturers or have been influenced heavily by their thinking. It is time to gather more information from the teachers themselves in order to establish if all of the principles, guidance and exemplars in geographical education are being put into practice in an effective manner. This study is a beginning of this process.

The study reported here consists of two parts:(a) an investigation of the perceptions of geographical educators in four Asian countries of the discipline of geography, and (b) a summary of their judgements on their own teaching practices in geography. The four countries involved in this study were Japan, Hong Kong, Singapore and Thailand. Between twenty-five and thirty-one geographical educators from each country participated in the study(30 in Japan, 25 in Hong Kong, 31 in Singapore and 28 in Thailand). Most of these people are geography teachers in secondary schools, although a few of the participants are university lecturers. The study consisted of a single survey which each participant completed. It was composed of a series of statements to which the participants were required to select a preferred response or to indicate their position on a three-point scale. The responses from each country were totalled and a composite score was obtained for the four countries. The resulting data gives a selective view for each of the four countries and a composite view of these Asian countries.

Geographical Educators' Perceptions of Geography

The geographical educators were asked to respond to two types of statements concerning their perception of geography:

1. the purpose of geography, and
2. aspects that should be included in studies of geography.

The purpose of geography has been defined variously over the twentieth century to include: the location of places around the world; the study of different regions; how people in different parts of the world see, use and interact with their environment; the patterns and processes on the earth's surface and people's concern for the environment. Participants were required to select which of the above purposes that they believe is the main purpose of geography. It is expected that geographical educators will value more than one of these purposes. However, by seeking a single response, it is expected that the focus of the educators' perception of the purpose of geography will be obtained. The responses of the educators on the main purpose of geography are summarised in Table 1. In all four countries the primary purpose of geography is seen to be how people in different parts of the world see, use and interact with their environment. The only notable variation to this generalisation is in Japan where a considerable number of geographical educators believe that the study of regions should be the main purpose of geography.

The investigation of the aspects that should be included in studies of geography focused on four areas - geographical knowledge, geographical skills, the development of life-roles and the development of specific values. Responses to these statements were in the form of ticking a box to agree, disagree or to be undecided about one's belief. In all, participants were required to make twelve responses to clarify the aspects of geography that they value.

Table 1 Main Purpose of Geography

PURPOSE OF GEOGRAPHY	JAPAN	HONG KONG	S'PORE	T'LAND	ALL
1.Location of places	0	1	0	4	5
2.Study of regions	11	0	2	5	18
3.People-environment interaction	15	14	22	11	62
4.Patterns and processes on the Earth's surface	0	7	5	5	17
5.Concern for the environment	4	3	2	3	12
TOTAL	30	25	31	28	114

Participants were asked to respond to two aspects of geographical knowledge - thefirst concerning factual knowledge and the second concerning the understanding of environmental systems. The results of these responses are summarised in Table 2.

Table 2 Beliefs About Selected Knowledge that Studies in Geography Should Involve

FACTS ABOUT THE WORLD	AGREE	MAYBE	DISAGREE
Japan (N = 30)	24	6	0
Hong Kong(N = 25)	12	13	0
Singapore(N = 31)	27	4	0
Thailand(N = 28)	17	11	0
All Countries(N = 114)	80	34	0
UNDERSTANDING ENVIRONMENTAL SYSTEMS	AGREE	MAYBE	DISAGREE
Japan	19	10	1
Hong Kong	22	3	0
Singapore	30	1	0
Thailand	26	1	1
All Countries	97	15	2

They reveal that the educators in Japan, Singapore and Thailand agreed that factual information about the world should be included in geographical studies. While none of the Hong Kong geographical educators felt that geographical facts were not important, less than half of the educators felt that these facts should be included in geographical studies. Overall, more than two-thirds of the respondents in the four countries supported the inclusion of factual information in geographical studies. The situation in regard to the value of developing an understanding of environmental systems in geographical studies was even more clear-cut. 85% of the respondents in the four countries believed that this should be the case. The only country in which there was any indecisiveness concerning the understanding of environmental systems was in Japan where one-third of the respondents were undecided.

The geographical educators in the four countries were then asked to state how important they felt that the development of skills such as mapping, field skills and the conducting of surveys should be in geographical studies. Their responses are summarised in Table 3. The overall responses indicate that almost two-thirds of these educators believe that the above-mentioned skills should be included in geographical studies. However, variations are evident in the responses across the four countries. In Hong Kong and Singapore there is overwhelming support for this statement. In Thailand, there is a majority of support, but evidence of some disagreement. In Japan, however, there is a feeling that skills do not form an integral part of studies in geography.

Table 3 Beliefs that Studies in Geography Should Involve Developing Skills

COUNTRY	AGREE	MAYBE	DISAGREE
Japan	4	13	13
Hong Kong	22	3	0
Singapore	30	1	0
Thailand	17	7	4
All Countries	73	24	17

How important do geographical educators in these four Asian countries see the development of life-roles in their geographical studies? The respondents were asked to react to five statements concerning the development of the following life-roles:

1.To educate people to live effectively in the world.
2.To encourage people to be effective citizens.
3.To encourage people to enjoy recreation and leisure.
4.To encourage people to be efficient producers.
5.To encourage people to be effective consumers.

Respondents were again asked to state whether they agreed, disagreed or were undecided about each statement. A summary of their responses is recorded in Table 4. Firstly, in regard to educating people to live effectively, a majority of respondents agreed that this was an important goal of studies in geography. Again, however, national variations were evident. In Hong Kong, Singapore and Thailand, two-thirds of the geographical educators supported this view. However, in Japan slightly less than half of the educators believe that this should be a goal. Overall, few educators felt that it was not important to educate people to live effectively in their world.

Secondly, the need to encourage people to become effective citizens through studies in geography was supported by 47% of the respondents in the four countries, although less than 10% did not support it outright. Again, educators in Hong Kong, Singapore and Thailand followed the general pattern while those in Japan came out strongly in support of effective citizenship as a key goal for geography.

Thirdly, the value in using studies in geography to encourage people to enjoy recreation and leisure was poorly supported overall in the four countries with less than 20% of the respondents supported it. This view was strongest in Japan and Singapore with educators in Hong Kong and Thailand split over the issue. The result for this statement seems to indicate that geographical educators in these countries are unsure of the role of recreation and leisure in geographical studies.

Fourthly, the geographical educators in the four countries were quite mixed in their view of the importance to emphasize the development of people as efficient producers through studies in geography. In fact, only 39% of the respondents agreed with this statement. The national variations were more encouraging. Geographical educators in both Singapore and Thailand supported the statement, while those in Japan and Hong Kong were generally undecided about it.

Fifthly, most respondents in all four countries did not believe that geography should involve studies to encourage people to become effective consumers. Only 29% of the educators supported this statement. It is again fair to say that they were undecided about the importance of this goal via studies in geography. Singapore was the only country in which a considerable proportion of geographical educators supported this statement.

Should the development of values be an important part of studies in geography? For this part of the survey, respondents were given five statements concerning the following values:

1.Developing a love for one's country and culture.
2.Dealing critically with political issues.
3.Developing an empathy for other races, cultures and ways of life.
4.Developing an awareness of social justice in society.
5.Learning to make wise decisions about using the environment.

Table 4 Beliefs that Studies Should Encourage the Following Life Roles

LIFE ROLE	AGREE	MAYBE	DISAGREE
1. EDUCATE PEOPLE TO LIVE EFFECTIVELY IN THE WORLD			
Japan	14	15	1
Hong Kong	16	9	0
Singapore	18	12	1
Thailand	18	9	1
All Countries	66	45	3
2. ENCOURAGE PEOPLE TO BE EFFECTIVE CITIZENS			
Japan	21	7	2
Hong Kong	12	13	0
Singapore	10	17	4
Thailand	11	12	5
All Countries	54	49	11
3. ENCOURAGE PEOPLE TO ENJOY RECREATION AND LEISURE			
Japan	4	19	7
Hong Kong	10	10	5
Singapore	5	19	7
Thailand	10	14	4
All Countries	29	62	23
4. ENCOURAGE PEOPLE TO BE EFFICIENT PRODUCERS			
Japan	6	18	6
Hong Kong	7	13	5
Singapore	16	13	2
Thailand	15	11	2
All Countries	44	55	15
5. ENCOURAGE PEOPLE TO BE EFFECTIVE CONSUMERS			
Japan	7	17	6
Hong Kong	5	17	3
Singapore	13	17	1
Thailand	8	14	6
All Countries	33	65	16

Again, respondents were asked to reply by agreeing, disagreeing or being undecided about each of the five statements. A summary of their responses is recorded in Table 5. Firstly, this Table shows that 45% of the total number of respondents supported the view that studies in geography should promote the development of a love for one's own country and culture. This view was not held generally across the four participating countries. For instance, it was supported strongly in Japan and to a lesser extent in Singapore and Hong Kong. However, it was rejected in Thailand. Secondly, the belief that geography should encourage the development of the ability to deal critically with political issues was generally rejected by the respondents with only 20% agreeing with the statement. The only country

Table 5 Beliefs Concerning Values what Studies in Geography Should Involve

VALUE	AGREE	MAYBE	DISAGREE
1. DEVELOPING A LOVE FOR ONE'S COUNTRY AND CULTURE			
Japan	21	9	0
Hong Kong	10	13	2
Singapore	15	15	1
Thailand	5	13	10
All Countries	51	50	13
2. DEAL CRITICALLY WITH POLITICAL ISSUES			
Japan	3	23	4
Hong Kong	3	17	5
Singapore	4	16	11
Thailand	13	13	2
All Countries	23	69	22
3. DEVELOPING AN EMPATHY FOR OTHER RACES, CULTURES AND WAYS OF LIFE			
Japan	28	2	0
Hong Kong	11	12	2
Singapore	21	9	1
Thailand	17	8	3
All Countries	77	31	6
4. DEVELOPING AN AWARENESS OF SOCIAL JUSTICE IN SOCIETY			
Japan	12	16	2
Hong Kong	7	17	1
Singapore	9	16	6
Thailand	8	15	5
All Countries	36	64	14
5. LEARNING TO MAKE WISE DECISIONS ABOUT USING THE ENVIRONMENT			
Japan	24	6	0
Hong Kong	21	4	0
Singapore	31	0	0
Thailand	25	3	0
All Countries	101	13	0

in which there was any substantial support for this idea was in Thailand. While the majority of respondents were undecided about this statement, the geographical educators in Singapore were the ones most against it. Thirdly, more than two-thirds of the respondents in the four countries supported the statement that studies in geography should promote empathy for other races, cultures and ways of life. This pattern was characteristic of the national responses in Japan, Singapore and Thailand, but curiously it was not supported by the geographical educators in Hong Kong. Fourthly, the view that the concept of social justice should be a key element in geographical studies was supported by only 32% of the respondents in the four countries. Only in Japan was there any substantial support for the statement. Fifthly, there was overwhelming support for the statement that studies in geography should be undertaken with a view to showing students how to make wise decisions about using the environment. This degree of support was true for all countries, and unanimous for the educators in Singapore.

Practices in geographical education

In addition to obtaining the perceptions of geographical educators about what they believe to be important in the discipline of geography, this study was designed to determine some the professional practices that these people used in their normal teaching. The following practices were included in this survey: the integration ofcontent from several disciplines in the content of geography lessons, the transmission of knowledge, the facilitating of learning, the promotion of student activity in lessons, the involvement of students in curriculum planning, the use of intrinsic and extrinsic forms of motivation, concern for academic standards, the emphasis on formal testing, the emphasis on co-operation and similar social skills in class work, the use of the class room as the only venue for learning, and the encouragement of creative expression in the geography lessons. For each of these practices, the geographical educators were asked to respond whether they used this practice : a great deal, sometimes or rarely. The results were summarised for each country and combined to give a regional overview. These are reported in Table 6.

The results of this part of the study again reveal variability across the four countries. While modern geography, especially that which adopts a humanistic orientation, draws on knowledge that was once allied to other disciplines and uses it in some form of an integrated thematic or issue-based approach, the respondents in this study generally did not support this practice of integration. Only 33% of the total number of respondents supported this practice. Only in Japan and Singapore were there substantial numbers of educators who believe that they make a great deal of use of integrated subject matter in their geography lessons.

Two statements were included to ascertain the degree to which these educators believe that they operated as either expositors or as facilitators of student learning. Two-thirds of the respondents believe that they transmit knowledge a great deal in their geography lessons while 65% believe that they facilitate student learning a great deal. On a national basis, the educators in Singapore, Thailand and Hong Kong placed a high emphasis on the transmission of geographical information, while those in Japan, Hong Kong and Singapore

Table 6 Extent to which the Following Practices are Used in Lessons

EDUCATIONAL PRACTICE	A GREAT DEAL	SOMETIMES	RARELY
1.INTEGRATION OF SUBJECT MATTER IN LESSONS			
Japan	12	15	3
Hong Kong	6	19	0
Singapore	15	16	0
Thailand	5	12	11
All Countries	38	62	14
2.TRANSMITS KNOWLEDGE			
Japan	11	18	1
Hong Kong	17	8	0
Singapore	28	3	0
Thailand	21	7	0
All Countries	77	36	1
3.FACILITATES STUDENT LEARNING			
Japan	20	10	0
Hong Kong	14	9	2
Singapore	25	6	0
Thailand	15	10	3
All Countries	74	35	5
4.ENCOURAGES STUDENT ACTIVITY IN LESSONS			
Japan	6	20	4
Hong Kong	5	18	2
Singapore	8	22	1
Thailand	12	14	2
All Countries	31	74	9
5.INVOLVES STUDENTS IN CURRICULUM PLANNING			
Japan	0	10	20
Hong Kong	3	8	14
Singapore	1	7	23
Thailand	10	10	8
All Countries	14	35	65
6.PRACTISES INTRINSIC MOTIVATION			
Japan	10	13	7
Hong Kong	5	20	0
Singapore	7	21	3
Thailand	8	9	11
All Countries	30	63	21
7.PRACTISES EXTRINSIC MOTIVATION			
Japan	8	20	2
Hong Kong	14	11	0
Singapore	21	10	0
Thailand	4	19	5
All Countries	47	60	7

Table 6 (Continued)	A GREAT DEAL	SOMETIMES	RARELY
8.EXPRESSES CONCERN FOR ACADEMIC STANDARDS			
Japan	13	15	2
Hong Kong	7	18	0
Singapore	29	2	0
Thailand	14	12	2
All Countries	63	47	4
9.FOCUSES ON TESTING			
Japan	6	20	4
Hong Kong	8	16	1
Singapore	22	9	0
Thailand	4	21	3
All Countries	40	66	8
10.EMPHASISES CO-OPERATION AMONGST STUDENTS IN CLASS WORK			
Japan	7	14	9
Hong Kong	3	15	7
Singapore	13	18	0
Thailand	13	13	2
All Countries	36	60	18
11.INSISTS THAT ALL THE STUDY WILL BE DONE IN THE CLASSROOM			
Japan	8	16	6
Hong Kong	5	17	3
Singapore	13	18	0
Thailand	11	12	5
All Countries	39	63	15
12.ENCOURAGES CREATIVE EXPRESSION IN LESSONS			
Japan	6	19	5
Hong Kong	6	15	4
Singapore	13	15	3
Thailand	9	16	3
All Countries	34	65	15

placed a high emphasis on facilitating student learning. It is apparent from these results that geographical educators in Singapore and Hong Kong place a greater emphasis on the use of a variety of approaches to teaching geography than do those educators in Japan and in Thailand.

While there was a majority of support for the practice of facilitating student learning in geography lessons in these four countries, the reverse is so for the encouragement of student activity during lessons. Only 27% of respondents in the four countries practised this a great deal while 63% used this approach sometimes. Within the four participating countries, only in Thailand was there any substantial support for this strategy. A second statement regarding active student involvement in the geography lessons was that concerning the involvement of students in curriculum planning tasks. Only 12% of the respondents practised this activity a great deal whereas 56% of them rarely practised this activity. Thailand was the only one of the four participating countries in which this approach was notable.

The practice of motivating students is common to all areas of the curriculum. It may be extrinsic,i.e. grades are awarded, or intrinsic,i.e. where there is no need for external rewards. There is more evidence of extrinsic motivation in these Asian countries. Only 26% of the total number of respondents practised intrinsic motivation a great deal. These educators were mainly evident in Japan and Thailand. Extrinsic motivation is a major practice in Singapore and Hong Kong, but is not emphasised in Japan and Thailand.

The concern for academic standards is of importance to an overall majority of respondents(57%). However, it is especially important to geographical educators in Singapore where 93% of the respondents supported this practice strongly. This practice is of lesser importance in Japan and Thailand, but of limited importance in Hong Kong. In many ways, this practice can be related to the emphasis that educators place on testing in their geography lessons. While only 35% of the total respondents practised testing in their geography classes a great deal, this figure is 71% in Singapore.

The degree to which geographical educators emphasize social skills, such as co-operation, in their classes again revealed a limited general support for this practice. Only 32% of the respondents made regular use of social skills in their classes. Educators in Singapore and Thailand were most conspicuous in their emphasis on social skills in their geography classes.

A similar overall result was obtained when educators were asked to declare the extent to which they relied on the classroom as the sole place for study of geography. 34% of the total respondents used the classroom as the only place for study in geography whereas 55% were undecided about their response. Perhaps, most of the undecided respondents make use of field trips and other related outdoors experiences. It is interesting to note that the countries in which greatest emphasis was placed on the classroom as the place for learning geography were Thailand followed by Singapore.

The extent to which geographical educators promoted creative expression in their classes was the final task in the survey. Only 30% of those educators surveyed stated that they regularly encouraged creative expression in their geography classes while some 57% were undecided about this practice. Only a substantial number of those educators from Singapore declared that they regularly encouraged this creativity.

Conclusion

These results do not seek to provide explanations. Rather, they describe the current situation in four Asian countries. No attempt has been made to enter into the differing cultural variations that are evident in the four countries. Nor is there any attempt to relate other contextual variables to the data,e.g. educational systems and policies, historical developments, technological developments and so on. These results do however point to some common ground in geographical education amongst the four countries and some conspicuous differences.

What commonalities can be derived from this data? The first area of commonality is in the perceptions of these educators towards the main purpose of geography. Most of them saw the main purpose of geography as the study of the ways that people in different parts of the world see, use and interact with their environment. As for the main aspects of that should be included in studies of geography, these educators emphasised: the importance of learning facts about the world; understanding environmental systems; developing skills; educating people to live effectively in the world; developing an empathy for other races, cultures and ways of life; and learning to make wise decisions about using the environment. Collectively, the main educational practices that these educators used to achieve the above are the transmission of knowledge and through the facilitation of student learning.

Each of the four countries is a distinctive blend of perceptions and practices. It is worth noted those aspects which are valued by geographical educators in each country.

In Japan, it is reasonable to conclude that the geographical educators surveyed perceived that the main purposes of geography are the interactions between people and their environment plus the study of regions. These educators believed that studies in geography should involve: facts about the world; understanding environmental systems; encouraging people to be effective citizens; developing a love for one's country and culture; developing an empathy for other races, cultures and ways of life; and making wise decisions about using the environment. The educational practices that these educators used a great deal were: facilitating student learning and, to a lesser extent, the transmission of knowledge and the integration of subject matter in lessons.

The geographical educators in Hong Kong perceived that the main purpose of geography is to study people-environment interactions. They believe that the aspects that should be emphasized in the study of geography should include: understanding environmental systems; developing skills; educating people to live effectively in the world; and learning to make wise decisions about using the environment. The educational practices favoured by these educators for teaching geography include: the transmission of knowledge; the facilitation of student learning and extrinsic motivation.

Those geographical educators in Singapore are different again. Their perception of the main purpose of geography again focused on the study of the interactions between people and their environment. As for the aspects that should be involved in geographical studies, the geographical educators from Singapore believe that the following are important: facts about the world; understanding environmental systems; developing skills; educating people to live effectively in the world; encouraging people to be efficient producers; developing a love for one's country and culture; developing an empathy for other races, cultures and ways of life; and learning to make wise decisions about the using the environment. The educational practices favoured by Singaporean geographical educators for teaching geography include: the integration of subject matter in lessons; the transmission of knowledge; the facilitation of student learning; the use of extrinsic motivation; expressions of concern for academic standards; a focus on testing; an emphasis on cooperation in the geography lessons and encouragement of creative expression during geography classes.

The Thai geographical educators also emphasised people environmental interactions as the main purpose for studying geography. The aspects that they believed that studies in geography should involve include the following: facts about the world; understanding environmental systems; developing skills; educating people to live effectively in the world; encouraging people to be efficient producers; dealing critically with political issues; developing an empathy with other races, cultures and ways of life; and learning to make wise decisions about using the environment. The main educational practices that the Thai geographical educators favour include: the transmission of knowledge; the facilitation of student knowledge; encouragement of student activity during geography lessons; expressing concern for academic standards; and an emphasis on co-operation amongst students during class work.

A number of extensions are logical from this study. They include: a closer investigation of the geographical educators in these four Asian countries to seek explanations for the results in this specific study; an expansion of the number of countries participating in the survey to obtain a broader Asian view of geography and geographical education; and a substantiation of the perceptions and practices through the collection of a variety of exemplars to illustrate the particular generalisations. All of these investigations will shed more light on the nature of the Asian geographical educator and will probably demonstrate the roots of geographical education in places such as the United Kingdom or in the USA. However, even in this small study, it is apparent that the development of an Asian view of geographical education is a difficult concept to delineate. Like the global community of geographical educators, the Asian community of educators must realise that their goal of geographical education is viewed differently across Asian countries and differing practices are employed to implement it in schools.

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BETTER TEXTBOOKS FOR STUDENTS: THE CASE OF TEXTBOOK PREPARATION FOR THE COASTAL REGION OF CHINA

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Abstract

Under the nine-year compulsory education, a set of new geography textbooks about the coastal region of China was prepared. The psychological and learning characteristics of the children who will use the materials were considered during the preparation in order to produce textbooks which they will enjoy to read and use. This paper is in four parts. The first part briefly describes the functions of textbooks. The prime purpose of a good textbook is to provide useful and relevant learning materials for the students. The second part examines the intention of new textbook users based on the surveying data of the psychological and learning characteristics of the students in the coastal region of China. The third part of the paper describes how these learning characteristics were used as basis for textbook preparation. This part forms the core of the paper. The paper concludes with an appreciation of the criteria used in maintaining interest in textbook materials and in criteria for textbook evaluation. Overall, this paper provides a theoretical account of textbook writing; whether students like the materials, or not, is the subject of a subsequent practical evaluation by teachers and students.

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ISSUE-BASED TEACHING:
WHY ARE TEACHERS RETICENT?
The Case of Hong Kong

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Abstract

Geography teachers in Hong Kong, as in many other parts of the world, often continue to emphasize didactic content teaching, most of the class time being devoted to the acquisition of factual knowledge. Pupils are seldom given sufficient opportunity to practise skills and develop values and attitudes. Issue-based teaching is advocated as one direction we should go. Nevertheless, the recent moves towards the teaching of values, beliefs and attitudes through issue-based teaching is not always accepted by geography teachers. This paper examines why teachers in Hong Kong seem fearful of an issues approach and suggests how issues can be incorporated into geography lessons to enhance values and attitude development of pupils.

Geography Teaching in Hong Kong

The rationale of the recent junior and senior secondary geography syllabi in Hong Kong for pupils of 11 to 17 years seeks a style of learning in which pupils broaden their knowledge of the world through identifying the relationship between man and his living environment, and become aware of local, regional and global issues. Sir Keith Joseph's speech at the special U.K. Geographical Association Conference in 1985 described Geography as "a value-laden subject" and that the recognition of values as an integral part of school geography is to be welcomed. (Raw, 1989, p.19). However, in Hong Kong, despite the efforts of the teacher education programmes offered by the universities and the

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colleges of education and various seminars and workshops run by the Advisory Inspectorate of the Government Education Department, teachers are not persuaded to try issue-based teaching from which values, beliefs and attitudes can be enhanced. They often comment that pupils are not in the position to discuss and to make decisions if insufficient facts and concepts are not introduced first. Hence, it is difficult if not impossible to encourage value and attitude development.

Some teachers have attempted issue-based teaching but have, in reality, still taught in a traditional didactic way by emphasizing factual acquisition through exposition. In such situation, the issues are commonly used as a starter for motivation or as examples to illustrate or confirm what had already been taught in the lesson. The issue was seldom used as a basis for enquiry learning and pupils were given minimal opportunity to become actively involved in working with the data to conceptualize and develop a range of skills. The issue, unfortunately, was treated as another piece of "hard fact" to remember and it rarely facilitated the introduction of conflict and controvercy, and the provision of opportunities for values enquiry. In the end, the pupils merely replicated what the teacher said during the lesson and rarely formulated their own stance.

Reasons for Didactic Teaching in Hong Kong

There are a number of reasons why teachers in Hong Kong prefer to use a didactic approach rather than an issue-based approach. Most of the teachers were brought up within a traditional pattern which emphasized factual information and rote learning. Teachers feel more comfortable in dealing with information and knowledge as they can control the teaching pace and be "sure" of learning outcome. The more pupils can recall in the examination, the higher the chance for these pupils to get promotion to advanced studies. Yet, there is no certainty that this group of pupils is significantly better and more able as a result of such experiences. Teachers seem to have a conservative view towards the role of a "good" teacher. They regard the school as a place to acquire information. It may have been true decades ago. But confronted with the problem of knowledge explosion today, the accommodation of still more stagnant knowledge would seem less important than the utilization of knowledge in handling day to day problems and issues. The didactic teachers establish the belief that 'good' pupils are passive learners who do not need to take an active role in learning. Pupils, therefore, should be provided with everything and learn by reception. The teacher's role is one of an information giver stressing greatly the teacher's expertise and authority. The issue-based teachers emphasize that teachers act as facilitators to help pupils or actually work together with pupils ways of using geographical information and ideas to handle geographical problems. Once the skills of inquiry are acquired, pupils are able to apply the skills of investigation into other areas. Learning is therefore more active and is more directly relevant to daily situations. The whole emphasis is on process rather than product. Unfortunately, teachers in Hong Kong still in general prefer product teaching. They are afraid that if they don't teach sufficient facts, pupils may not do well in the public examination.

This is also reflected in a discrepancy of curriculum objectives, implementation and assessment. For instance, the general aims and objectives of the Geography F4-5 syllabus state that:

> This course should equip Form Five leavers with general and specific knowledge, skills and attitudes appropriate to the discipline of geography which will be useful to them in society and help them in further study."
>
> (C.D.C. 1984,p.6)

However, the questions set in the public examination are mainly involved a low level of thinking with emphasis on knowledge and comprehension; hence teachers feel encouraged to teach in a didactic manner. Thus, what is advocated in the curriculum guidebook can rarely achieve success. Despite much discussions on the teaching of issue-based geography, few questions focus on issues (HKEA, 1990 CE Geography Paper I) and pupils are not asked to demonstrate their value analysis skills. So it is not surprising that teachers with a pragmatic view to the job and overburdened with other demands are disinclined to switch from a didactic to an issue-based approach.

Resourcing is a further reason for the use of a didactic approach by teachers in Hong Kong. With a didactic approach, teachers can remain with the singly use of textbook and combined with good explanation and questioning techniques can conduct excellent lessons. They don't need to spend time searching for materials for issue-based teaching. Even when teachers have suitable materials, they often do not have a clear idea of how to structure them in order to bring out the different views frequently implicit in the issue. Consequently, they often go back to using the issue materials in a didactic fashion. Moreover, some teachers, have limited awareness of the world, find it difficult to keep environmental issues themselves. The next section illustrates issue-based teaching and attempts to demonstrate how an issue can be chosen and structured so as to overcome some of these difficulties as perceived by teachers.

Teaching Issue-based Geography

In teaching issue-based geography, teachers need to choose a good issue to start with. Questions are raised around a key problem which is derived from the issue. A good issue can be viewed as a geographical problem with conflicting views. Pupils are provided with different version of viewpoints to consider. They are given opportunity to analyze the different version of information and decide on their own which stand point to be adopted. They are not expected to remember factual information but are encouraged to utilize this information as evidence to help analysis and make their own judgements. During the course of enquiry, pupils are trained to handle the problem within the issue from a geographical perspective and utilize related geographical concepts to support understanding.

Earthquake as natural hazard is an issue in the Hong Kong F4-5 geography syllabus for pupils age 15-17 arising from man-land interaction. It is regarded as a good issue to discuss with pupils because on one hand earthquake poses hazardous threats to people but on the other hand, many people still prefer to risk their lives by living near earthquake zone. So why is there such a conflict? In the traditional way, teachers would probably start by (1) defining the term earthquake, (2) plotting the distribution of major earthquakes, (3) examining the causes of earthquake, (4) eliciting reasons why people still stay in such a dangerous place, and (5) discussing the kinds of measures to prevent excessive damage and loss during the earthquake. Such a teaching sequence will tend to encourage primarily the memorization of factual information about earthquake. Pupils will not be stimulated and aroused to appreciate why people still prefer to risk their lives by living on or near earthquake zone despite the known existing danger. Empathy is not achieved.

The case of San Francisco can be more widely used by teachers for a number of practical reasons. First, because earthquake is so important and frequent in San Francisco that almost once in every few years will have the occurrence of a sizable quake. Second, San Francisco is a well known place to the Hong Kong pupils and there is the obvious advantage of familiarity despite its great distance from the territory. Third, teachers have available considerable amount of information for use in enquiry. Readily available newspaper cuttings and news videos are both stimulating and attractive to pupils.

The question for teachers is how to use these materials to highlight the major issues. Geologists forecast that "the big one" may hit San Francisco soon following the last devastating quake in 1906. Was the one that struck San Francisco last October, 1989 the expected BIG ONE? If not, when will San Francisco be struck badly? Why is San Francisco so prone to violent tremors? Despite the frequent trembling warnings in recent years, why do people still prefer to live in San Francisco? What are the attractions of San Francisco which offset the risk? If people are going to stay, how should they cope with the crustal instability?

The Issue: San Francisco: Home of Major Earthquake - "stay" or "leave" or "come and join"

(1) Pupils were given a news extract on the attractive scenery near San Francisco and were then asked to express their impressions of San Francisco.

(2) Pupils were given a second news extract, also describing the beautiful cities, elegant seascape and wonderful temperate climate - a paradise to live in or at least it seems to be. But the latter part of the extract hints that San Francisco is also a risky place. Pupils then worked out the risk that people take in living in San Francisco. (See Figure 1).

(3) Would the pupils change their impression of San Francisco after reading the second extract? What is the hazard faced by Californians? What was the impact on the insurance policies of people in San Francisco? Are they always expecting "the big one" to come? Was the one that happened in October 1989 "the big one" that everybody was expecting. (See Figure 2).

Read the passages below:

San Francisco and Los Angeles are two of the best cities in the world in which to live. Here one can find the comfortable climate, beautiful plants and charming gentle breezes blowing in from the Pacific Ocean. The luxuriously built garden villa and the 20th century architectural design of castle type apartments push the property market to the peak and this has attracted lots of investments.

1. Where is San Francisco and Los Angeles? Plot them onto the world map provided.
2. What are your impressions of San Francisco and Los Angeles after reading the paragraph?

ELEGANT BUT DANGEROUS PLACE TO LIVE

San Francisco, one of America's most beautiful cities with its elegant seascape and temperate climate, is also one of the **deadliest** *with the unstable San Andreas fault running along side it.*

The fault is the greatest fracture anywhere in the earth's crust. Those who live in the city's splendour know they are taking their chances and it was no surprise when disaster hit again.
(extracted from SCMP, 19 October, 1989)

1. What CHANCES are the people of San Francisco taking?
2. What is your impression now about San Francisco after reading this second passage?

Figure 1 Contrasting news extracts to arouse conflicting impressions.

ON SHAKY GROUND

LOS ANGELES QUAKE INSURERS STEPPING CAUTIOUSLY

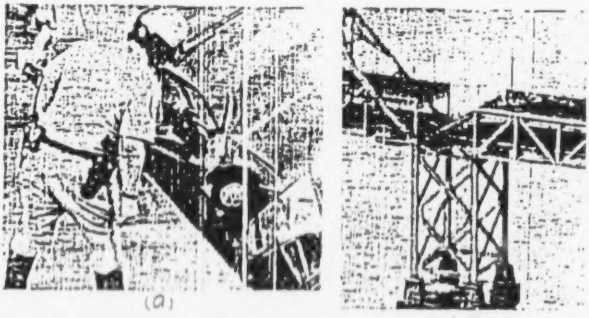
Los Angeles: Many business executives and homeowners here can no longer obtain or afford insurance policies to fully protect their property from what Angelenos call "The Big One", the powerful earthquake that seismologists say will probably strike the region sometime in the next decades.

(By P. Yoshihashi, SCMP, 1987)

1. Why can't people of Los Angeles afford the high insurance policy?
2. What do you think they want to insure? Why?
3. What is meant by "The Big One"?

WHAT HAPPENED TO SAN FRANCISCO ON 17 OCT., 1989?

The two photos below show the scene following an earthquake in the Bay Area of San Francisco in October, 1989.



(a)

(b)

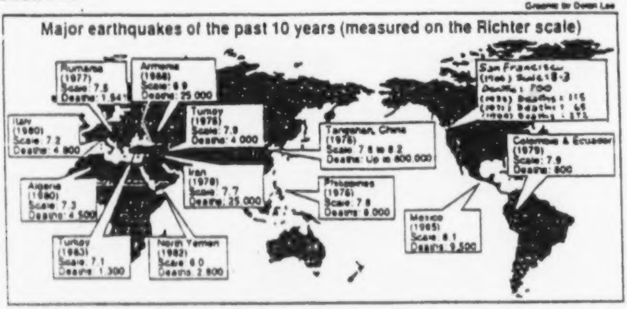
Figure 2 Identifying the hazard

(4) From the geological data, is this the big one? Compare this with the previous seismographical records - Why San Francisco is so prone to violent and frequent quakes? Pupils were not told of the answers by the teacher but they were asked to find out (a) the relationship between the occurrence of major quakes and the plate boundaries, and (b) the common ways of plate movements which cause major earthquakes. (See Figure 3).

WHY IS SAN FRANCISCO (CALIFORNIA) SO PRONE TO VIOLENT TREMORS?

Below is a map showing major earthquakes of the past 10 years. Look at this information and the video, and answer the following questions.

Graphic by Dean Lee



Major earthquakes of the past 10 years (measured on the Richter scale)

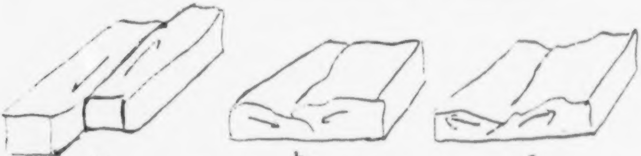
Rumania (1977) Scale: 7.5 Deaths: 1,541
Armenia (1988) Scale: 6.9 Deaths: 25,000
Italy (1980) Scale: 7.2 Deaths: 4,800
Turkey (1976) Scale: 7.9 Deaths: 4,000
Algeria (1980) Scale: 7.3 Deaths: 4,500
Iran (1978) Scale: 7.7 Deaths: 25,000
Turkey (1983) Scale: 7.1 Deaths: 1,300
North Yemen (1982) Scale: 6.0 Deaths: 2,800
Tangshan, China (1976) Scale: 7.8 to 8.2 Deaths: Up to 800,000
Philippines (1976) Scale: 7.8 Deaths: 8,000
San Francisco (1906) Scale 8.3 Deaths: 700
Colombia & Ecuador (1979) Scale: 7.9 Deaths: 800
Mexico (1985) Scale: 8.1 Deaths: 9,500

1. Mark on the world map provided, the location of major earthquake belts in RED.
2. Mark on the map the major plate boundaries with a THICK BLACK LINE. Name the plates accordingly as:

A)African Plate	B)Pacific Plate
C)Antarctic Plate	D)Eurasian Plate
E)N. America Plate	F)S. America Plate
G)Indo-Australian Plate	H)Nazca Plate

3. Insert ARROWS to show the movement direction of the plates.
4. What is the relationship between the location of major earthquakes and the plate boundaries?
5. What are the 3 common ways of plate movements which cause major earthquakes?

a. The plates are ________________ each other.
b. The plates are ________________ each other.
c. The plates are ________________ each other.



a. b. c.

Figure 3 Working with data to learn geographical concepts

IS THIS "THE BIG ONE"?

Look at the video which shows the San Francisco Earthquake on 17th October, 1989. Also read the news extract below and answer the following questions.

SAN FRANCISCO HIT & MANY DIE ON FREEWAY

At least 272 people were reported to have been killed and 650 injured on Tuesday evening in the earthquake, reading 7.1 on the Richter scale. It lasted only 15 seconds and wrecked buildings across and area nearly 160 km long and started fires throughout San Francisco, Oakland and Berkeley in the Bay Area and in the mountain areas near Santa Crutz, on the Pacific coast 96 km to the south.

The greatest loss of life occurred on Interstate Highway 880 in Oakland where a section of double-deck freeway collapsed onto the lower roadway, crushing at least 253 people in their cars. In addition, a section of the Bay Bridge, which connects San Francisco and the East Bay, fell.

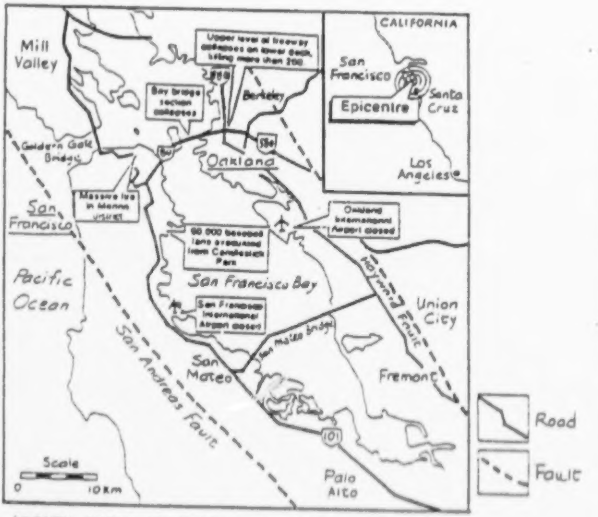
Many house collapsed and cracks and debris everywhere. Electric power was cut off and several gas lines touched off fires, including one in San Francisco that burned a block of buildings in the Marina district.This quake is the 6th most powerful to strike California since 1906.
(Extracted from International Herald Tribune, 19/10/89)

1. Name as many different kinds of destructions as possible from the video and the news extract.
2. What is the magnitude of this earthquake according to Richter Scale? How long did this earthquake last?
3. Do you think this the "The Big One" expected by the Californians?
4. Was this the only quake in California? How about before?

Figure 2b: Understanding the Issue

(5) Once pupils had established the basic concepts about earthquakes through the data based questions, they were brought back to the case of San Francisco and see if they could utilize what they had just acquired to explain the situation in San Francisco so as to answer the question that was raised earlier on - Why S.F. is so prone to earthquake attack? (See Figure 4).

6. The map below shows the earthquake in the Bay Area of San Francisco in October, 1989.


Mill Valley
CALIFORNIA
San Francisco
Epicentre
Santa Cruz
Los Angeles
Upper level of freeway collapses on lower deck, killing more than 200
880
Bay bridge section collapses
Berkeley
Golden Gate Bridge
Oakland
580
Massive fire in Marina district
San Francisco
Oakland International Airport closed
60 000 baseball fans evacuated from Candlestick Park
Pacific Ocean
San Francisco Bay
San Francisco International Airport closed
Hayward Fault
Union City
San Mateo bridge
San Mateo
Fremont
San Andreas Fault
101
Scale
0
10km
Palo Alto
Road
Fault

(SOUTH CHINA MORNING POST October, 19, 1989)

a. In which major earthquake belt is San Francisco located?
b. Use RED ARROWS to mark the possible movement direction of the crustal plates on the above map.
c. Which fault runs through San Francisco?
d. What is (are) the main cause(s) of this earthquake?
f. Would you expect to see more serious earthquake to happen in future? When will San Francisco shake again?

Figure 4 Relating the concepts back to the issue

(6) It seems that most of the people agree that the earthquake in 1989 wasn't the "big one". However, it acted as a warning to people living there. So how do people react to such warning? Will they stay or leave this deadliest place? Or would some still prefer to move in and join the adventurous life because of other better attractions despite the risk? Pupils were asked to make their own decision. Those who want to stay were asked to suggest preventive measures that they should take to keep losses and casualties to the minimum during the BIG earthquake that is being expected at any time. (See Figure 5).

"A GOOD WARNING" SOUNDED

The San Francisco earthquake was "a good warning". The question is not whether a big earthquake is coming. The question is when will it come. Tuesday's quake was "not a trivial earthquake, but it was not a 1906 quake." The most recent quake "is telling us we've got a lot to learn and to do better", such as strengthening buildings and other structures to withstand a major quake. At present, there is no way of warning of a specific quake at a specific time, but odds can be calculated. The American Geological Survey Committee estimated that a major quake - one measuring 7.0 on the Richter Scale - had a 50% chance of occurring in the San Francisco area along the San Andreas Fault, the fault involved in Tuesday's shocks, during the next 30 years. The experts also predicted there was a 60% chance of a 7.5 magnitude quake along the Southern California segments of San Andreas Fault, and a 50% chance of one of magnitude 8.0 or greater.

(extracted from SCMP, 19 October, 1989)

SAN FRANCISCO: HOME OF MAJOR EARTHQUAKES "STAY" OR "LEAVE" OR "COME & JOIN"

Look at a few video segments which show why different people decided to stay or leave San Francisco.

1. What is the majority's decision? Why?
2. What is your decision? Stay or Leave? Why?
3. If most of the people were willing to take the risk to stay, what kind of measures, or precautionary actions, would you suggest to them in order to reduce losses and casualties caused by the earthquake? a) as a local resident,
   b) as a town planner,
   c) as a building engineer or architect.

Fiure 5 Decision-making and predicting the future for individual action

Implications

In making the issue more appealing to pupils, choice and the provision of data based materials that pupils can cope with is vital. If they are too lengthy or if too much detail, they may kill the interest and curiosity of the pupils who may become get lost in a morass of data. Lengthy newspaper cuttings are preferably reduced for presentation. Different forms of information such as pictures, photographs, maps and videos should be included when possible so as to provide variation. News video in particular provides a high degree of visual impact and can improve appreciation and realization of the problem. Yet, as with other kinds of resources, the length of video segments generally needs to be kept short so that pupils can easily extract the one or two main ideas. Questions need to be sequenced systematically so as to help tracing the logical argument and development of a problem issue. Yet sequencing needs to be handled flexibly otherwise pupil's creativity will be constrained. Teachers need to act as facilitators to select, arrange and present data for pupils so that they have the opportunity to work with the data to conceptualize and to appreciate how decisions can sensibly be made. (Kwan, 1989, p.22).

Experience in Hong Kong schools show that pupils are more interested in dealing with these issues and problems and are more involved when working with the source materials in order to reflect their understanding and opinion.

Conclusion

Teaching issue-based geography is by no means easy for teachers. Teachers need to be well aware of the issues happening around them and be able to identify and bring them into classroom. Pupils, on the other hand, gain considerable benefits from issue-learning compared with traditional didactic teaching. They see the relevancy in learning. Learning via an issue means flesh and life to the pupils.

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TEACHING THE GEOGRAPHY OF JAPAN: SEEKING A NEW DIRECTION

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Introduction

Outside Japan, the study of Japanese language and 'things Japanese' has progressed rapidly in recent years. At the undergraduate level, an ever increasing number of Japanese Studies courses are being offered at Universities and other tertiary institutions in Europe, America and Australia. At the University of Hong Kong, this trend is reflected in the establishment of a Department of Japanese in 1986, and in the creation of a Board of Japanese Studies in 1990. At the secondary school level, a variety of topics relating to Japan have been introduced recently into educational programmes. Geography is no exception with, for example, Japan now offered as a regional option or as an 'exemplar' in special option modules in UK sixth-form courses, and topics related to the geography of Japan have been made a compulsory element in the Hong Kong Education Authority Form IV and V syllabus.

The major problem facing teachers of the 'geography of Japan', however, is the continued scarcity of authoritative texts, in English, on this subject. This not only creates certain difficulties for teachers wishing to find useful up to date information on various aspects relating to Japanese geography, but, arguably, also leads to the continuation of certain 'myths' and well-worn cliches concerning Japan's development, at the expense of other issues more relevant to the study of contemporary Japan. Perhaps the shortage of suitable teaching and learning material is explained by the fact that much of the expansion in Japanese Studies at the tertiary level is taken up by students specialising, not surprisingly, in economics or business studies. At the moment, the number of scholars with specialist interest in the geography of Japan remains at a comparatively low level and, even where courses on this subject are well subscribed (e.g.

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at HK University on average of 40 students each year are enroled on the Geography of Japan option), the majority of graduates prefer to use their knowledge in the business and commercial rather than educational sectors. In an attempt to redress this problem, therefore, this paper seeks to identify some of those issues which are, in the opinion of the author, most relevant in the study of the geography of contemporary Japan.

Contemporary Issues

In order to clarify those issues most relevant to the study of the geography of contemporary Japan it is helpful, first of all, to ask why should we study Japan in the first place? A recent series of articles in the British journal "Teaching Geography" (various authors, Jan. 1990) addressed this question, concluding that Japan is simply too important a country, as the world's leading trading nation and creditor, as well as major competitor and partner, for us to ignore further. Stating the case bluntly it is argued that "we must foster a closer understanding of Japan if only through national and personal self-interest" (1990, p.6). Countries in S.E. Asia and on the Pacific rim would surely not dispute this line of reasoning.

A second argument put forward, and one which relates more closely to the context of geographic inquiry, is that Japan offers excellent exemplars of important geographical issues. A range of themes, including "The Challenge of Natural Environments", "Managing Human Environments", and "Issues of Global Concern" are offered by way of illustration. Once again, the truth of this is hard to deny - but what have we really got so far? Quite simply, two statements which suggest that Japan is an important place to study, and that it has lots of geographical features worthy of study. Perhaps, given the importance of Japan to the development of the Asian-Pacific region, we should seek issues offering a little bit more substance, and relevance, to our geographic studies. For example, knowing that Japan has a large population, relatively little flat land for settlement, few mineral resources, and a hugely successful economy, should we not focus our attention on man-land-development issues and problems, with a view to applying these, where relevant, to the situations in our own countries?

It could be suggested, of course, that this has been precisely the purpose of many studies of Japan in the past. For the last two and a half decades people have striven to explain the so-called Japanese miracle, possibly in the hope that Japan's success could be emulated elsewhere. Indeed, many aspects of Japan's business and management techniques have now been adopted in other countries, apparently with success. Issues which have been largely ignored, however, include the many negative consequences of rapid, unbridled economic development in Japan which the people there are only now coming to terms with, or will be forced to do so in the near future. Many of these issues have a direct bearing on geographic inquiry and it is here, learning from Japan's "mistakes", that specific attention could be placed in future.

In order to identify some of these issues, it may be useful at this stage to review, briefly, some of the important texts which have been written on the geography of Japan. Although written quarter of a century ago, Trewartha's "Japan : A Physical, Cultural and Regional Geography" (1965) remains a "classic", and is still, arguably, the best starting point for teachers new to this subject area. Of course, much of this work is dated, both from the point of view that it was written before Japan's rise to world super-power status, and because it emphasises a regional rather than a more systematic approach to the geography of Japan. Nevertheless, the basic elements of physical geography, and the problem of a small habitable land area combined with a large population are discussed in great detail. Perhaps most significantly, Trewartha does not lay undue stress on Japan's shortage of mineral resources. Rather, equal emphasis is placed on the many natural resources Japan does possess, and the role these have played in Japan's post war development. This is one aspect which is frequently overlooked by other scholars of Japan.

More up to date is Kornhauser's work on urban Japan: first published in 1976 and revised in 1982 under the title "Japan : Geographic Background to Urban-Industrial Growth". The book provides a good systematic account of urban and industrial development in Japan, describing the historical circumstances for the concentration of population and industry along the Pacific sea- board (Tokaido belt). As such, the book lays the groundwork for an understanding of the major issues of geographic concern confronting Japan today, since these issues mostly revolve around the considerable regional disparities which exist between the "over-populated" Tokaido belt and the "under-populated" peripheral regions. As the original title of the book suggests (Urban Japan : Its Foundations and Growth), however, the scope of Kornhauser's work is somewhat restricted, and these issues do not get the full coverage they now warrant.

The works by Trewartha and Kornhauser are both designed for sixth-formers / undergraduates / teachers. Until just a few years ago virtually nothing was available suitable for direct reference by students lower than sixth-form level. This situation changed with the publication in 1985 of MacDonald's textbook on "The Geography of

Modern Japan". Clearly written, systematic, and well illustrated with photographs and diagrams, the book merits praise for its presentation as well as its intent. Being more up to date, the issues alluded to by Kornhauser are given specific reference in this volume. The problem, however, is that they get lost somewhat in the background of "general" geography of Japan which MacDonald is obliged to rewrite. The issues have been reached, therefore, but not yet explored.

So, what are these issues to be tackled, hopefully, in the next generation of textbooks on the geography of Japan? What are the sets of "what?, where?, and why?" questions that we should be asking ourselves?

The first set of questions could relate to the topics covered by Kornhauser:

WHAT? What were the reasons for high economic growth in post war Japan? Which industries played the most important roles in achieving high economic growth?

WHERE? Which regions of Japan made the greatest contribution to national economic development, and which areas suffered relative decline?

WHY? How do you explain these regional disparities?

These questions inevitably lead to a more detailed analysis of the major issues confronting Japan today. For example:

WHAT? What was the effect of high economic growth on the population distribution of Japan?

WHERE? Which areas experience problems of over-congestion as a result of the massive rural exodus of the 1960s, and which areas have lost population to such an extent that their local economies are no longer self supporting?

WHY? Why is the problem of uneven population distribution an issue of major concern?

Answers to the latter question can be sought by posing a further series of questions:

WHAT? What are the specific problems faced in the densely populated urban areas of Japan, and what are the problems faced in areas which have suffered severe depopulation?

WHERE? Provide case studies to illustrate your answer.

HOW? How can these problems be resolved?

Perhaps before getting to grips with the final question, some other relevant issues need to be explored. For example:

WHAT? What has been the impact of high economic growth in Japan on the quality of life of the population?

There are, of course, many directions in which this question could lead. One of the more important areas of concern is the impact improved standards of living have had on demographic vital rates. After 1945, Japan experienced a large "baby boom", followed by a rapid decline in birth rate. Simultaneously, death rates fell dramatically. Thus:

WHAT? What have been the changes in birth and death rates in Japan since 1945? What has been the impact of these changes on rates of natural population growth?

WHERE? Which areas experience the highest rates of natural population growth today, and which areas have the lowest rates of growth?

WHY? Consider the reasons why there is a marked spatial difference in rates of natural population increase.

Students should recognise straight away the fact that lowest rates of natural increase are in severely depopulated areas, and the highest rates of growth are in already congested urban areas. For example, the rate of natural population increase in urban Saitama prefecture is four times as great as in rural Shimane prefecture. The reason is simply that rural-urban migration in the 1960s and early 1970s involved predominantly school leavers. Thus, the reproductive age group is now heavily concentrated in urban areas. Clearly, this compounds the problem of solving regional differences in population distribution.

The problems in Japan's rural areas are further compounded by other demographic factors, notably the problem of ageing population. In fact, this is a topic of great national concern since Japan currently has one of the fastest rates of ageing population in the world. Appropriate question sets may include, therefore:

> WHAT? What is the impact of the lowering of death rates since 1945 on the life expectancy of Japanese people? What impact will the post war baby boom have on the proportion of elderly people in Japan by the year 2015? What impact will this have on the dependency ratio in Japan?
>
> WHERE? Where is the problem of ageing population felt most acutely today? To what extent do you think urban areas will suffer this problem in future?
>
> WHY? Why is the problem of ageing a serious issue? How should essential services such as schools and hospitals be allocated in future?

The problems facing Japan's rural areas can be linked to the future of agriculture in the country. Many issues can be raised here, including the topical debate on the influence of Japanese farmers at the international level. For example:

> WHAT? What is the level of farm mechanisation in Japan? What are the main farm outputs? To what extent do Japanese farmers engage in full-time agriculture?
>
> WHERE? Where are the main agricultural districts in Japan? How much of the farmland in Japan is located in areas of severe rural depopulation?
>
> WHY? To what extent do you think farming is important in an industrialised country such as Japan? What do you think is the future of agriculture in Japan?

Turning back to other issues relating to the problem of regional imbalance, one highly topical issue arising from the excessive utilisation of resources within a limited area is environmental conservation. This is a subject which has already been well documented in Japan, and outside Japan, and so hardly needs further reiteration here. Once again, the range of potential questions is wide, but nevertheless important. As OECD suggested in the late 1970s, Japan is now a world leader in pollution abatement and environmental policy. Is this the case?

WHAT? What happened at a small fishing town in Kynoshu (Minamata) in the 1950s to raise environmental awareness in Japan? What types of pollution have been inflicted upon the Japanese islands by the Japanese? What is pollution?

WHERE? Where is pollution most evident in Japan? Which areas were most severely affected by pollution in the 1960s? Which areas in Japan area still environmentally threatened? Which areas in other parts of the world are environmentally threatened by Japanese sponsored activities?

WHY? Why is there a relationship between areas of high population density and high environmental risk? Why do some sparsely populated areas suffer more from pollution then other, more densely populated areas.

Traditional solutions to these issues have focused on "Remodelling the Archipelago". In order to achieve more balanced population distribution it is suggested that industry should be dispersed to the peripheral regions. Investment in such projects as transport improvement (e.g. the "Bullet train") is aimed at achieving this goal. But deeper problems are apparent:

WHAT? What is the nature of the dual-structured economy in Japan? What is meant by "just-in-time" business management?

WHERE? Where are the major manufacturing firms in Japan located? Where are their sub-contractors located?

WHY? Why should a major firm relocate its operation if all its sub-contractors are already located close-by? Why should the sub-contractors be tempted to move away from industrial core- areas? To what extent does re-location or dispersion of the core industrial belt really mean expansion of the core industrial belt.

A further 'why?' question would be pertinens here. Why, if Japan has moved from a stage where most employment is concentrated in the manufacturing sector to one where most employees work in the tertiary sector, should industrial re- location be held as the key to solving the issues raised above. Is it not the case that, according to most theories we, as geographers are familiar with, tertiary activities tend necessarily to be located in the centres of high population density?

Perhaps, the answer for Japan is to expand its operations to a global basis. To what extent has this already been achieved?

Concluding Remarks

Perhaps, given the apparent insolubility of many of the contemporary issues described here, it will require more than one future generation of geography textbooks on Japan to help us grasp all these issues. However, many of the issues raised are, I believe, relevant to situations we face in our own countries. By opening ourselves, and our students, to these issues it can be hoped that not only will we gain more awareness and understanding of such a vibrant and 'important' overseas culture as Japan, but also gain an ability to reflect more Wisely on the path to further economic development we face.

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VALUES TEACHING IN SCHOOL GEOGRAPHY IN HONG KONG

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Abstract

Values education in geography has been argued for by many geographical educators. In the early eighties, developing values education in geography was recommended by the Education Department of Hong Kong as part of an attempt to revive moral education. Two studies conducted in 1984 and 1987-9, however, indicate that this recommendation has not been implemented. The practical stance which the majority of school administrators and teachers adopted when making curricular decision, was found to be the key factor leading to this phenomenon.

I. Introduction

Terms such as moral education, personal and social education, values education, social education, civic education, are used very often interchangeably, by teachers to describe the teaching about or of values in schools. It is beyond the capacity of this paper to clarify in detail the similarities and differences of their various definitions. In this paper, the term 'values education' is used to represent the teaching of and/or about values in schools which includes the connotations of moral education (which is very commonly used in Hong Kong), personal and social education (which is widely used in England).

It is unlikely that any educator will question the importance of values education but it is debatable how it should be structured in the school curriculum. Should values teaching be carried out as an independent subject occupying a portion of the curriculum time?

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Or should it be conducted through extra-curricular activities, or be taught through all subjects in the curriculum? The approach adopted in different parts of the world varies. In Australia,

> 'The direct teaching of moral education/moral thinking as a special subject has not been widely accepted within Australian education systems, apart from the schools which have close religious affiliations. As a result, opportunities for teaching moral issues have occurred across a wide spectrum of subjects, but especially in social studies...' (Marsh & Stafford, 1984, 230)

In Denmark, the 'traditional organisational structures make it unlikely that a new subject, moral education, will be introduced into the timetable' (Bugge, 1988, p.68).

However, in Singapore, a separate subject for moral education is included in the formal curriculum (Gopinathan, 1988). In Japan, the interdisciplinary approach adopted since the Second World War was replaced by a separate moral education subject in 1958 (Takahashi, 1988). Theoretically, the academic curriculum cannot be completely detached from values teaching (Musgrave, 1978; Pring, 1984). Geography, being a social subject, is said to be able to provide many opportunities for values education. Blachford (1972), Buttimer (1974), Huckle (1981), Wiegand (1986) have cogently argued for developing values teaching in geographical education.

In a territory-wide attempt to revive moral education in Hong Kong in the early eighties, the interdisciplinary approach, i.e. teaching values through all the curriculum subjects was strongly advocated by the Education Department, the curriculum central agency. (Edu. Dept., 1981). As a deviation from the usual centre-periphery curriculum development model, the curriculum change advocated for moral education in that period was developed in a school-centred manner, i.e. schools were given the power to decide whether to implement moral education and how to carry it out. Did schools and geography teachers follow the recommendations made by the central agency. Why or why not?

II. Sources of data

Two studies on this area were conducted in 1984 and 1987-89. The result shed light on the above questions. The study conducted in 1984 was a self-administered, postal questionnaire survey. Geography teachers teaching the Hong Kong Certificate of Education (i.e. Year 4 and 5) course in 205 schools, constituting half the total number of secondary schools in Hong Kong, were invited to complete a questionnaire on the way they taught values and their attitudes towards values teaching through geography. A total of 207 completed questionnaires from 105 schools were collected and analysed.

Between 1987 and 89, the implementation process and 'product' of the moral education curriculum in eleven secondary schools which had made serious efforts in effecting values education curriculum change, were studied. Three of them were studied indepth using a range of ethnographic methods including interviews (both formal and informal), observations and archival search. In the other eight schools, the major trunk of data came from interviews of teachers. A total of 59 teaching staff were interviewed, among them five were heads of geography. As the scope of this study was wider than that of values teaching through geography, the findings were not only a supplementary set of data but also an enrichment of the 1984 study. It provided a new insight in explaining the phenomena identified.

III. How far was values teaching carried out in school geography?

Among the eleven schools studied in 1987-9, administrators and curriculum leaders in all but one school adopted a 'passive encouragement' stance in implementing values education in geography teaching. This meant that guidelines and related curriculum documents on this area published by the central agency were passed on to the teachers by the school administrators. When relevant training courses were available, teachers were informed but they were seldom given time-off for attending these courses. Only one school required teachers to state what values might be taught in their annual work plan. However, no administrative measures were set to ensure that teachers would implement them in classroom teaching.

In the same study, it was found that not only school authorities, but also teachers themselves neglected values teaching in geography. Only the teachers in one school had, on one occasion, made planned and coordinated efforts to carry out values teaching through geography. In that case, the whole programme was initiated by the head of moral education who saw the potential for values teaching through academic subjects. A number of subject heads were invited to jointly organise teaching activities for the theme, 'Environmental Conservation'. Geography was one of the subjects which responded favourably to this invitation.

Geography teachers in other schools said they had not purposely planned a session specially for values teaching. Values teaching in the classroom was conducted ind haphazard manner when 'suitable opportunities' occurred.

The questionnaire survey conducted in 1984 revealed a similar phenonmenon. Geography teachers who answered the questionnaire admitted that teaching cognitive knowledge and skills took up the lion's share of the teaching time. Over 64% of the teachers said that 60% or more of the teaching time was used for intellectual development. For about 70% of the respondents, teaching physcho-motor skills took up 20% to 30% of their teaching time. In comparison, teaching involving the affective domain occupied the smallest proportion. 60% of the respondents estimated that 10% to 20% of their teaching time was used for values teaching. About 40% of the teachers spent less than 10% of the teaching time on the affective domain.

The same study showed that values teaching was not of prime importance in the eyes of geography teachers. 'To fulfil the goals of values education' was ranked lower in importance than 'to arouse students' interest in studying geography', 'to develop an understanding of spatial patterns and process' and 'to acquire skills in conducting, acquiring, communicating and applying knowledge' in school geography.

IV. Discussion of findings

The above findings indicate that values teaching in school geography has not been taken very seriously by either the school administrators or geography teachers. There were seldom planned efforts made for values education. Little time was given for this aspect of curriculum. What are the reasons behind this neglect of values teaching in geography? Was it the central agency or the school authorities or the teachers responsible for it?

It should be pointed out that the eleven schools studied in 1987-89 was a 'biased' sample as all of them had in various ways attempted to promote values education. The school authorities had allocated some time in the timetable specially for values education. If they had not taken values education as important, they would not have invested so much effort into it. Why did they not promote values teaching in geography? Most of the school administrators and curriculum leaders in the schools studied knew that the interdisciplinary approach was recommended by the central agency but they all felt that it was *impractical* to implement it. Similarly, the geography teachers interviewed also admitted that values teaching in geography was not unimportant but it was not 'practical' to put it into practice.

It seems that this practical consideration was an important factor in the neglecting of values education in school geography. Before explaining further, it is necessary to clarify what 'practical' means. 'Practical' is the opposite of 'theoretical' (Gauthier, 1963; Hartnett & Naish, 1976; Reid, 1978, 1983). Being practical means that school personnel is more concerned with practical problems and carrying out work smoothly rather than achieving ideals (Lieberman & Miller, 1984).

Why was it impractical for the school administrators to develop values teaching in geography? The study of the eleven schools shows that school administrators could decide business at the school level, for example, the adoption of curriculum change, the inclusion of a new subject into the school curriculum, the deployment of staff, etc. However, they admitted that classroom and practical teaching was out of their control. Teachers were treated as specialists and as such enjoyed high autonomy in deciding what teaching approaches, strategies and methods were to be used and what content to be taught.

Pressing teachers to implement in the classroom a curriculum decision which they did not support was unlikely to succeed. Furthermore, promoting pupils' intellectual development was considered by many as the single most important aim of education. The head of academic affairs of a school was a typical example. He said that promoting the various aspects of pupils' development was important, but if his school failed to develop pupils' intellectual abilities, then his school could not be called a school. It is hardly surprising then that carrying out values education in geography was of secondary importance in his school.

On the part of the teachers, it was found from the interviews that teachers had prioritized the whole range of tasks they performed. They dealt with the basic, immediate tasks first and wished to ensure that these basic tasks were smoothly carried out. The single most important task perceived by the teachers was to help pupils acquire the knowledge involved in their subject in order to get through public examinations. This strong emphasis on public examination results had been reported in the Llewellyn Report (1982). In the Hong Kong Certificate of Education Examination, questions related to values seldom appear in geography papers (Lam, 1984) and this also applies to the Hong Kong Advanced Level Examination. Even if questions on values were set, candidates could omit them because there are enough options from which to choose. Consequently, there is no pressing need for geography teachers to include values teaching in the curriculum even though it is part of the recommended curricula developed by the Curriculum Development Council. Values teaching in geography has become very much an ideal to be achieved rather than a practical problem which must be tackled.

The acute shortage of support such as high quality teaching materials, advice from professionals, means that teachers trying to implement values teaching in geography teaching would inflict much hardship to themselves as their workload would be greatly increased. Implementing values teaching would, therefore, affect the smooth functioning of geography teachers' work and their accomplishing the basic, immediate tasks they have to face.

V. Possible ways of improvement?

(Sound arguments for values teaching in school geography have been put forward but the studies revealed that this had not been successfully implemented in Hong Kong secondary schools.) Teaching about values in a haphazard and unplanned manner is unlikely to achieve the goals of values education including deepening the understanding of geographical phenomena and developing values in a rational manner. To successfully implement this curricular recommendation, much work has to be done.

In view of the importance of examinations to the career of pupils, any attempt to improve the imbalance of intellectual development values education is virtually out of the control of teachers. Including more questions related to values in public examinations might result in values teaching being upgraded from an 'ideal' to an 'immediate practical task' in teachers' work plan. Examination can be an effective means of achieving curriculum change.

The practical stance adopted by school personnel described could be modified by their perception of duty and interest. Among the geography teachers interviewed, not one had strongly emphasised values teaching in their subject, therefore, no geography teacher example can be quoted. Instead, the case of a Chinese History teacher studied could illustrate the point. This teacher, being strongly influenced by a PGCE course he took, devised active steps to teach values through his subject. He 'encouraged' colleagues in his subject panel to list what values were to be taught in their schedule of work and to put them into practice in classroom teaching. This case shows the potential of intensive staff development as a means of successful implementation of values education in geography. However, after analysing the syllabuses for teacher training in geography in a college of education and a university, it was found that this had not been adequately emphasised though the situation has improved when compared with the early eighties. In-service training opportunities in this area are virtually non-existent. In view of this situation, improving staff development seems to be a necessary step if values education is to be carried out effectively in schools.

VI. Conclusion

Teaching values in school geography is theoretically sound and should be carried out if one wishes to improve geographical education in schools. The two studies reported in this paper, however, reveal a fairly gloomy picture of this aspect of curriculum development. As has been revealed in other studies (e.g. Lieberman & Miller, 1984; Nias, 1987), school personnel is found to have adopted a practical stance in making curricular decisions so as to ensure survival. The 'environment' for developing values teaching is acutely unfavourable. The lack of support, the over-riding importance of examination to the pupils, the over-emphasis on factual knowledge and intellectual skills in public examinations, and the lack of professional training in teaching values exert profound impact on school personnel in deciding whether to put values teaching into practice.

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GEOGRAPHY FOR ACADEMIC EXCELLENCE OR SOCIO-ECONOMIC RELEVANCE? LESSONS DRAWN FROM CURRICULUM MODERNISATION IN POST-1976 CHINA

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Abstract

This paper firstly reveals the curriculum development process undertaken between 1978 and 1980 for the restoration of the Senior Secondary School Geography Curriculum (SSSGC) in the People's Republic of China (PRC), during which professional geographers debated whether the the intended SSSGC should aim at academic excellence based on the 'earth science' paradigm or socio-economic relevance based on the 'man-land interaction' paradigm. Then it examines the features of the SSSGC which is based on an eclectic integration of the two approaches. Lastly,it examines the barriers of implementation and draws useful lessons for geography educators in the developing countries.

Introduction

The literature on curriculum change has richly documented how curriculum reforms are generated by various socio-economic and political expectations. In the developing countries the driving forces behind curriculum change and renewal often have a different character due to the importance of historical (post-independence development), socio-political (nation-building) and economic (modernization) reasons. Moreover, there is always a pressing need to re-orientate the school curriculum to the needs and aspirations of national development (Coombs 1980, Dove 1980, Lillis 1984, Lewin 1985, Hawes 1985). It is not unusual for national leaders and educators to transplant western curriculum packages which are perceived as

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advanced knowledge and shortcuts to the acquisition of modern skills. The international experience has also identified the 'change without change' and 'intention becoming facade' syndromes of curriculum innovation that result from the gap between the large scale, top-down curriculum development initiatives at the central level and implementation outcomes at the grassroots of the school system (Lewin 1981, Crossley 1984, Morris 1985, Guthrie 1986).

This paper is based on a retrospective and illuminative case study of the 'blackbox' of curriculum development in the PRC with particular reference to the design and implementation of the SSSGC in post-1976 China. The analysis is derived from documentation analysis, semi-structured interviews, intrinsic curriculum materials and field visits (Leung 1989). It highlights the dilemma faced by geography educators in China between the quest for academic excellence and socio-economic relevance in post-1976 China.

The Quest for Modernization and Educational Excellence in Post-1976 China

1976 was a watershed in the history of contemporary China. After the death of Mao Zedong and the downfall of the 'Gang of Four', the new Chinese leadership gradually abandoned the ultra-leftist policy of 'permanent revolution' and shifted its attention to achieving the four modernizations of China under a growth-oriented national development goal put forward by Deng Xiaoping.The Chinese leadership conceived of China as being still in the stage of 'underdeveloped socialism' and falling twenty years behind the world's most advanced countries in science and technology. Obsessed by the serious crisis of backwardness, Deng called for vigorous modernization programmes to rejuvenate the Chinese nation. Science and education were hailed as the key factors for achieving modernizatioN (Deng 1980 a & b). In August 1977, Deng instructed the People's Education Press, which is the central curriculum development agency, to organise a team of two hundred scholars to update primary and secondary textbooks with reference to imported textbooks from the advanced Western countries.As Deng justified, " Teaching materials must reflect the advanced level of modern technology" (Deng quoted in Pu 1985). Such policy of borrowing advanced foreign knowledge for China's benefit is also in line with the principle of 'using foreign things to serve China' put forth by Chinese modernisers ever since the humiliating 'opening' of China in 1840. The quest for modernity and excellence thus become the guiding principle of curriculum development in post-1976 China.

Geography Education in China 1862-1976

A brief review of the vicissitudes of geography education in China is necessary for understanding the background of the restoration of the Senior Secondary School Geography Curriculum. Geography (Dili) as a formal curriculum first appeared during the Tongzhi Restoration between 1862 -67 which aimed at strengthening the Qing Dynasty by learning western knowledge but it was confined to a small group of selected Confucian scholars. Geography became a formal secondary school subject in 1903 and up to 1949 it was mainly a descriptive subject characterised regional approach and environmental determinism. Nevertheless it occupied a reasonable proportion of the overall secondary school timetable, ranging from 5.4% to 8% of the total teaching time (Chu & Sun 1982).

After 1949 geography in the secondary school curriculum was heavily influenced by political developments. Russification of China's education system in 1953 led to the transplant of Russian geography syllabuses and teaching approaches into the school curriculum. The contents of geography education were intentionally selected to promote patriotism and socialist beliefs (Bai & Wang 1980). Geography was considered a science subject along the Russian tradition.Accordingly, physical and economic geography enjoyed very high status,but human geography was condemned as a 'capitalist' discipline and banned. Geographers who challenged the relevance of the Russian approach or advocated human geography were purged.

After 1958 the importance of geography in the school curriculum further declined. In 1958 geography was cancelled at the senior secondary level. The teaching time allocated to geography dropped from 6.3% to 1.7 %. After 1966 geography was completely scrapped from the secondary school curriculum as it was labelled by Mao's wife as a discipline that encouraged sightseeing!. Geography teachers were either dismissed or forced to teach other subjects.

The Contentious Process of Innovation, 1977-1980

In 1977 geography was initially restored but only in the junior secondary schools (Chinese geography in year one and world geography in year two).Then the community of scientists used its newly elevated status to press for the restoration of geography at the senior secondary level.In 1979, geographers at the tertiary level had already expressed their deepest concern that they could not recruit university students with a solid background knowledge of geography in 1979. The Second National Conference on Science and Technology held in April 1980 provided an external stimuli to unfreeze a situation of change. A Proposal on the Strengthening and Popularization of Earth Science was drafted by the China Geographical Association and was jointly signed by 10 other related related professional societies The Proposal argued for the importance of earth science in China's modernization and called for the teaching of earth science in schools. It was publicized as an open petition (China Geographical Association 1980 a).

In September 1980 the Ministry of Education (MOE) organised study tours to visit the united States, Europe and Japan to bring back experiences of curriculum reforms in the advanced countries, hoping that they would provide shortcuts to curriculum modernization in China. In December 1980 the China Geographical Association held a two week conference at Hangzhou in Zhejiang Province to discuss the objectives, content and teaching hours of SSSGC.

At the Hangzhou Conference, which was attended by tertiary level geographers (64%), government officials (13%) and secondary school teachers (23%), three groups of innovation actors emerged each advocating a particular approach and content arrangement for the intended SSSGC (China Geogrpahical Association 1980 b).

(a) Earth science advocators

The Earth Science advocators mainly represented the prestigious keypoint universities and they stressed the adademic excellence of SSSGC more than anything else. They claimed that earth science was one of the six foundation sciences (together with mathematics, physics, chemistry, astronomy and biology) and it could equip pupils with advanced scientific knowledge, such as plate tectonics, remote sensing, geophysics, spatial analysis. Quoting examples of earth science electives in Japanese and American high schools, they claimed that earth science (Dixue) enjoyed higher academic status than geography (Dili). It was obvious that the earth science advocators wanted to give geography education a distinct scientific outlook and label. Trial texbooks and drafted syllabuses were produced to support their rationales.

(b) Man-land Relationship Advocators
The Man-Land Relationship advocators mainly represented the teacher training institutions. Quoting the 24th International Geographical Conference held in Tokyo in August 1980, they argued that the man-environment interaction approach was the dominant world trend of geography education. They felt that if geography was to contribute to China's national development its social relevance should be stressed. SSSGC should address directly to China's development needs such as proper land use, natural conservation and industrial planning. Pupils should be made fully aware of China's development constraints, such as the lack of farmland, uneven distribution of energy resources and over population. Examples of foreign human geography textbooks were reproduced to illustrate their arguments. In particular, the A-level geography syllabus of Hong Kong, which was based on the man-environment paradigm, was translated and circulated.

(c) Earth science and Economic Geography Advocators
The advocators were mainly represented by geographers from Shanghai. They claimed that their approach reflected the world's major pattern of secondary school geography education as revealed by their survey of foreign syllabuses. A 60-page document containing foreign secondary school geography syllabuses was distributed.

The three groups of innovators were academics from tertiary institutions. They tried to press for a particular approach of SSSGC based on the own perception of its academic and social relevance and with reference to their partial understanding of geography education in some developed countries. But on a whole there was little discussion on the feasibility of implementation in the school system, although some participating secondary school teachers pointed out that any approach should meet the needs of 96% of the student population that would not enter universities.

While the Hangzhou Conference provided a forum for different curriculum interest groups to voice their expectations, final decisions were officially made by the Ministry of Education in conjunction with the geography editorial board of the People's Education Press (PEP). Eventually in April 1981 the MOE announced that the man-environment approach was to be adopted in the restored SSSGC.In July 1981 the PEP confirmed that the title geography was kept instead of earth science.

Unique Features of SSSGC

In the PRC curriculum development is synonymous with the production of nationally standardised textbooks.Textbooks are the de facto curriculum. The stress of curriculum uniformity is based on a deeprooted belief that nationally unified syllabuses and textooks written by experts could ensure the standards of school and quality of teaching. The PEP produced the two volumes of Senior Secondary School Geography in March 1982 for nationwide implementation in September the same year.

In its de facto form, the SSSGC has two major goals :

> "Firstly to equip pupils with the foundation knowledge on the physical world, then pupils learn how to correctly utilise and conserve the environment so as to make the physical environment more advantageous to human activities and production" (PEP 1982)

Five teaching objectives are also spelled out, namely (a) enable pupils to recognise the interrelationship between the essential physcial elements, (b) enable pupils to understand the physical conditions for production and human activities provided by nature, and the impact of human activities on nature, (c) help pupils to build up comprehensive viewpoints on natural resources, population and environment, (d) develop pupils' ability to analyse problems comprehensively, (e) promote patriotism and dialectic materialism (PEP 1982).

Fig. 1 summarises the chapter headings of the the SSSGC textbooks written by professional geographers of the PEP and the underlying conceptual framework. It is obvious that the PEP has taken an eclectic synthesis of the three approaches advocated by the innovation actors in 1980. Under the umbrella term of man-environment approach, the first four chapters in Book one provide the basic 'earth science' or 'physical geography' knowledge, then in Book two six major issues are being discussed under topics traditionally used in economic geography. The last chapter Man & Environment highlights the whole approach (figure 2).

A standardised approach is followed in Book two on the presentation of the six major issues. Firstly a global picture is presented, then the specific Chinese problems are discussed. Pupils are therefore able to realise China's problems in a global perspective. In the suggested exercises of each chapter, pupils are given opportunties to apply the basic concepts in local studies, such as local environmental problems and population control. During implementation, some schools encouraged their pupils to do mini research projects that involve field observation, data collection and analysis. For example, one secondary school in an industrial district in Guangzhou explored air and water pollution problems caused by the local paper making industries. The results were submitted to the local Environment Protection Bureau (Leung 1989).

Fig. 1 Text Structure of the First Edition of SSSGC, June 1982 & the Underlying Conceptual Framework

BOOK I	Chapter Heading	No of pages
Chapter One	The Earth in the Universe	35
Chapter Two	The Atmosphere	45
Chapter Three	Water	29
Chapter Four	Earth Movement	45
BOOK 2		
Chapter Five	The Biosphere & Natural Regions	33
Chapter Six	Natural Resources	29
Chapter Seven	Energy Problems	26
Chapter Eight	Agriculture & Food Problems	28
Chapter Nine	Industrial Problems	30
Chapter Ten	Population & Urbanization	31
Chapter Eleven	Man & Environment	6

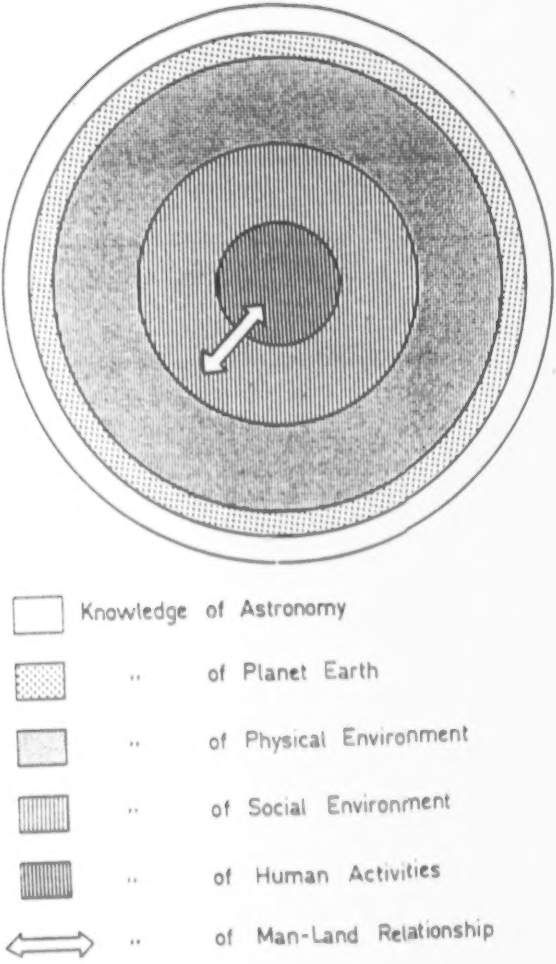
Knowledge of Astronomy
" of Planet Earth
" of Physical Environment
" of Social Environment
" of Human Activities
" of Man-Land Relationship

Figure 2 Concept map of the relationship between man and the environment in texts

Implementation Problems of SSSGC

In a vast and heterogeneous country like China the nature of curriculum implementation is far more complicated than central curriculum planners could have envisaged. Since the restoration of SSSGC in 1982 there are four critical barriers that have undermined the implementation of SSSGC in the school system, namely :

(a) **unfavourable intrinsic features of SSSGC.** The implementation of SSSGC involves the restoration of a cancelled curriculum and the adoption of a new man-environment approach. Although in-service seminars and special explanatory articles were used to introduce the new approach to teachers, the intrinsic content arrangement of the textbooks suggested only a mechanical collation of physical geography and economic geography. Geographers and teachers generally felt that the theme of man-environment interaction was not distinctive enough. Moreover, the presentation form of the textbooks and the suggested teaching time are unfavourable for teaching and learning. In general the texts were written in a highly condensed and encyclopaedic language that is "dry and unimaginative for arousing pupils' interest" (Ge 1986). Teachers have to elaborate greatly in class to promote understanding. In particular, they find great difficulties in teaching book one which contains many difficult concepts like the celestial system, obliquity of the elliptic, atmospheric circulation, plate tectonics and geological evolution. To compensate for the inadequacy of teaching time for book one, many teachers simply ask pupils to read the chapters in book two which are perceived as purely descriptive and information giving only.

(b) **mismatch between resource implications and resource allocation in schools.** As recommended by the PEP, the full implementation of SSSGC requires a support of teaching resources that minimally include 50 wall maps,6 physical models, 2 sets of rock and mineral specimens, 2 sets of slides, films and many display pictures. However,secondary schools in China are generally ill-equipped due to the lack of funds. A survey in 1987 reveals that 87% of secondary schools have an acute shortage of basic teaching facilities, including blackboard and pupils' desks (Liu 1987). Rural and non-keypoint schools are particularly disadvantaged. There is not even a globe to show to pupils. Rural geography teachers complain that they only rely on chalk and talk to explain abstract concepts. At the same time local teachers do not have incentives to make home-produced teaching aids because there are little support from local education authorities. They are also ill-prepared for making indigeneous teaching aids as educational technology is a very weak component in teacher training programmes in China.

(c) **negative backwash effects of the public examination**. It is an irony that SSSGC is classified as an examination subjects for arts candidates only in the university entrance examination(the National Unified Higher School Examination) against the wish of the innovators who wanted to elevate the status of geography to a science status.Such arrangement greatly undermines the full implementation of SSSGC among the target student population! In the examination-oriented school system in China, such an arrangement confines the study of SSSGC to the 25% of arts candidates who take part in the public examination. Pupils in the science stream only study SSSGC superficially. Many schools simply don't offer SSSGC to science candidates. This counteracts the planners' idea that the man-environment education is socially relevant to all pupils

(d) **shortage of qualified geography teachers**. This remains to be the greatest factor that cripples implementation of SSSGC, especially in the remote rural areas. It was admitted by the PEP that there were little chances of implementing SSSGC in the remote rural regions in Northwestern and Southwestern China due to sever shortage of qualified teachers (Guo 1987).Unfortunately in the last five years the morale of the teaching profession has dropped rapidly due to low wages and poor social status. The rate of brain drain in the teaching profession far exceeds the supply of trained teachers.

Problems and Solutions

The development and implementation of SSSGC in post-1976 China clearly indicate that the main impetus of the curriculum change comes from the national leader's conception of education and modernization. Modernization of the geography curriculum means updating the restored SSSGC and the adoption of a man-environment relationship approach that is believed to be a fashionable approach in the world trend of geography education as well a socially relevant to China's development problems.

However, not enough attention has been paid to the realities of implementation concerning the lack of supporting resources, qualified teachers and in particular the great disparities between schools in the country. It is being admitted that the national curriculum is too academically oriented (Ma Li 1985) which is "divorced from the realities in the majority of regions and schools in the country. Haste makes waste--neither can teachers teach well nor pupils follow" (Yang 1986).

After 1985, the emphasis of curriculum development has shifted from curriculum modernization to the promotion of nine-year compulsory education which is perceived as "a matter of vital importance for the improvement of the quality of the nation and for the prosperity of the country" (CCP 1985). The newly established State Education Commission decided to design a core curriculum appropriate for the nine-year basic education.The immediate policy implication geography education is that the concept of man-environment interaction should be acquired by primary and junior secondary pupils as a basic civic value. Curriculum development is to be clearly divorced from textbook production. The SEdC will produce a nationally standardised geography syllabus, with clearly specified objectives,teaching points, basic geographical concepts and skills. Based on this, both the PEP and local geographers could produced geography textbooks which are to be scrutinised and approved by textbook review committees. It is expected that the the devolution of curriculum control will encourage greater teacher participation in curriculum innovation and local initiatives. At the same time the examination system will change. It has been proposed that the United National Higher School Examination will only test pupils' basic numerical and language skills, leaving the other subjects to be examined at the provincial level by local examination agencies that award graduation certificates to secondary school leavers. Geography then becomes a subject for all school leavers.

Conclusion: What can be Learned?

Useful lessons could be learned from the well intentioned curriculum modernization initiative in post-1976 China that was over-concerned with stressing advanced scientific knowledge and narrowly focused on the selection of university candidates at the senior secondary school level. The first lesson is that curriculum modernization should not overlook the reality that China possesses the world's second largest number of illiterates, and that illiteracy rate between the age group 12-40 ranges between 18% to 45% (Zhongguo Jiaoyu Bao, 25 February 1988). The provision of nine year basic education to 200 million school children (one-fifth of the China's population) is a tremendous task unmatched by any other country in the world. This has considerable implications for textbook writing and the presentation of curricula. The second lesson is, as vice-director He Dongchang of the SEdC acknowledged, curriculum development must be oriented to 80% of pupils in the countryside (He 1988). Geography education must be more relevant to the social needs of the learners as well as addressing China's pressing development problems. Above all, the majority of the Chinese population need to master the man-environment interaction concept in the most popular way through the formal and informal curriculum. In this respect, geographers in China have a great mission of designing a unique man-environment education for the world's largest student population.

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THE CARIBBEAN FISHING GAME: OBSERVATIONS AND APPLICATIONS

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Introduction

Before discovering the Caribbean Fishing Game post-exam and end of term lessons were always a problem. How to fill those 40 minutes before the school buses arrive or before the school pantomime? Thanks to the Fishing Game my problems are solved. "Can't we play the Fishing Game?" is now a frequent plea, not only at end of terms, but throughout the year. The Fishing Game is described as a Geographical Game - so why is it so popular? Explanation of this can be found in the typically Hong Kong reaction of the pupils to the game, which will be outlined below.

Description of the Game

In this game the class take on the role of Caribbean fishermen, who make their living by placing lobster pots around their island. The island as shown on Fig. 1, has an inshore area, sheltered by a series of islands, in which pots are protected from the worst of the weather, but in which only small lobsters can be caught. Pots placed offshore catch better quality lobsters, but the fishermen run the risk of being unable to collect their pots if the weather turns bad. As a result of this a price table is given, as shown below (Fig. 2). It can be seen that in bad weather the smaller, inshore lobsters command a higher price as they are the only lobsters available on such days.

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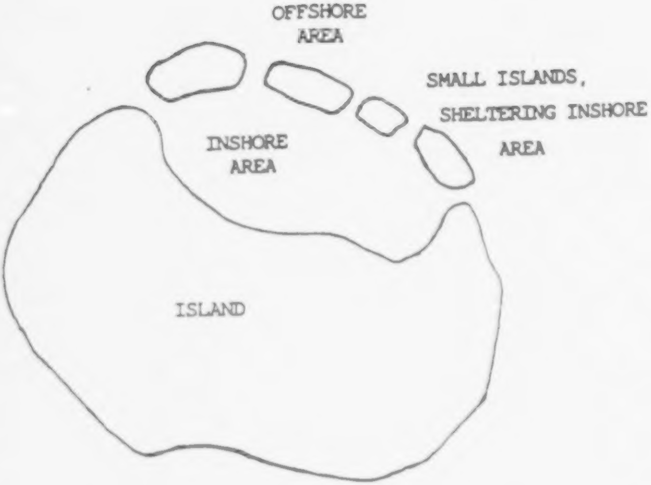
OFFSHORE AREA
SMALL ISLANDS, SHELTERING INSHORE AREA
INSHORE AREA
ISLAND

Figure 1 Map showing location of fishing zones

	GOOD DAY	BAD DAY
INSHORE	$2	$6
OFFSHORE	$4	$0

Figure 2 Table of lobster prices

The game starts with the fishermen having six pots each, but no money. They must place their pots in some combination of inshore and offshore locations, according the weather forecast. This is given by the teacher, who takes on the multi-faceted role of weather forecaster, rent collector, bank manager, television newscaster, etc. The weather is given in terms of probability using numbers one to six. For example if there is an equal chance of the weather being good or bad then choosing 1, 2 or 3 would give good weather, while choosing 4, 5 or 6 would give bad weather. It should be remembered that the Caribbean lies in the path of many tropical storms which can easily be included in the choice of suitable weather forecasts.

Once the weather has been chosen, the day's profit can be calculated using the price table (Fig. 2) and the record sheet (Fig. 3) as shown below. This process is then repeated daily with the total profit or loss gradually acruing. New pots at $5 a piece can be purchased each evening, but each fisherman must ensure that he has the $100 needed to pay his rent at the end of each week.

DAY OF WEEK	No. OF POTS INSHORE	No. OF POTS OFFSHORE	WEATHER	MONEY MADE ($)	No. OF POTS BOUGHT	COST OF NEW POTS ($)	DAY'S PROFIT ($)	TOTAL PROFIT ($)

Figure 3 Results table

Responses to the Game

I have played this game in two schools in England and now in the German Swiss International School in Hong Kong. In both locations the game was popular, but it has reached new heights here in Hong Kong. In Britain, even when familiar with the game, the response of the pupils is one of caution. Only very rarely would a fisherman invest in more than one or two pots until he safely had the $100 needed to pay the rent. The excitement of the game in these circumatances depended on how many fishermen were to go into the red and require assistance from the bank at the end of each week.

In Hong Kong the response is entirely different. From their first introduction to the game there is no hesitation. The payment of the rent is a full week away, and so it barely enters their thinking. From the first evening bulk orders for pots are being received and the numbers rapidly rise in the following days as profits continue to mount. By the third day of the game orders for twenty or more pots are not uncommon. Consequently, by the end of the week the rent is a mere drop in the ocean of the ever spiralling profits column. As a result, in Hong Kong the excitement of the game arises from the pretence of making large quantities of money, and as such it develops a distinctly competitive nature.

For the purposes of this paper the game was also played with two classes in the German stream of the school. Although one class was a little reticent for a while, they were, if anything, more speculative. One class, unhappy at the idea of the game simply ending when the bell went, insisted on selling their pots back to the shop, despite the fact that they were only given $2 each for them.

This speculation and drive to make money is an obvious characteristic of Hong Kong, and so such a response from the pupils, is perhaps, understandable. It might also be due to the fact that the pupils are largely from wealthy backgrounds, where the real rent is equally insignificant. Many of the children can be observed in the shops, neighbouring the shool, spending large amounts of money casually, and so it is not suprising that they are prepared to spend their earnings as fishermen, knowing that more will always be supplied. In Britain, where pocket money is usually smaller in quantity, the concept of saving up money to make large purchases is rather more common. Similarly the payment of the rent or mortgage may take a substantial proportion of their parents wages and so would be seen as more significant by the children.

Geographical Applications of the Game

At first sight of the game it is hard to recognize its Geographical applications. At times the classroom more closely resembles the basement of the Lisboa in Macau. The relevance of the game in terms of prices, and supply and demand is obvious, but a series of new applications arise due to the rapid growth of fishing which develops in the region.

1) The first consequence is usually the breakdown in the supply of pots, especially if multiple bulk orders arrive at the same time as a sequence of bad weather. This will usually result

in a restriction of the numbers of pots that can be bought, and in addition may result in a doubling of the price. An enterprising fisherman may, at this point, take the opportunity of undercutting the shops price, and sell his pots to his rivals, on the Black Market, earning himself a few extra dollars.

2) Secondly, such over-fishing will eventually lead to restrictions on the number of pots that can be placed by an individual, particularly in the inshore zone. If the position still does not improve then quotas are likely for the offshore zone as well.

3) As a consequence of so much fishing, and due to the increased spending power and affluence of the region, pollution may pose a further problem. Fishing may have to be stopped altogether, for some time, it contamination of the lobsters is identified.

Each of these measures do at the very least make the pupils see that restrictions and price increases are a consequence of their own actions. They may also help them to appreciate that the natural environment cannot form a source of economic wealth without careful management of its resources.

Other Applications of the Game

As already stated in the introduction this game does provide a very useful "filler" for spare lessons, but other advantages do arise from it. Whilst playing the game the class is united, working with one aim. With individuals choosing the weather, at the pick of a card, everybody is involved. Even quiet or unpopular pupils are, for a while, the centre of attention and are cajoled and threatened in a jovial way. All past dislikes or differences are apparently forgotten for the duration of the game, and all pupils receive the same treatment.

Secondly, when the shop is open and lobster pots are for sale, they can only be purchased by raising a hand and asking for the required number. Individuals who would never willingly contribute orally in class will at this point have to join in with the others. Gradually you can see them realizing that such actions are not painfull and do not result in ridicule and so they become increasingly at ease. When the game is played during, rather than at the end of a term, it is often gratifying to observe that this new found confidence will be carried over into normal subject lessons and contributions increase from those who often have a lot to offer, but, are too shy to participate.

Conclusion

Although it might be hard to incorporate the fishing game directly into a teaching course, it does have a definite role in the teaching of Geography. If the pupils were questioned, they would perhaps not be able to explain why it is a Geographical game, but undoubtedly the Geographical aspects as outlined above are understood and assimilated by them. Amongst clases at the German Swiss School it is clearly very popular and if it is enjoyable, and is in the pupils minds associated with Geography, then surely it can only have a beneficial effect on the teaching of the subject.

SOME COMMENTS ON THE USE OF AN INSTRUMENTED DRAINAGE BASIN IN THE TEACHING OF HYDROLOGY: A HONG KONG EXPERIENCE

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Many authors have outlined the virtue of the drainage basin as a unit of study for conducting research on hydrology and related subjects (e.g. Chorley, 1969; Ward, 1971). Less attention has been paid to assessing what drainage basins, especially those instrumented for research, have to offer in terms of teaching. The purpose of this paper is to make some suggestions as to what instrumented basins may offer to teachers of geography at undergraduate level. Their use for 'A' Level teaching in Hong Kong is also assessed. A small instrumented basin at Shek Kong in Hong Kong is used to provide examples.

An Instrumented Basin in Hong Kong

Funding was obtained that permitted the creation of an instrumented basin at the Kadoorie Agricultural Research Centre (see Figure 1). The Centre is located near Shek Kong in the New Territories. The drainage basin is small (less than 5 km^2) with steep slopes. It has a well developed vegetative cover of woodland and scrubland. Table 1 outlines the instruments that have been installed in the basin along with the hydrologic, meteorologic and water quality parameters that they are designed to measure.

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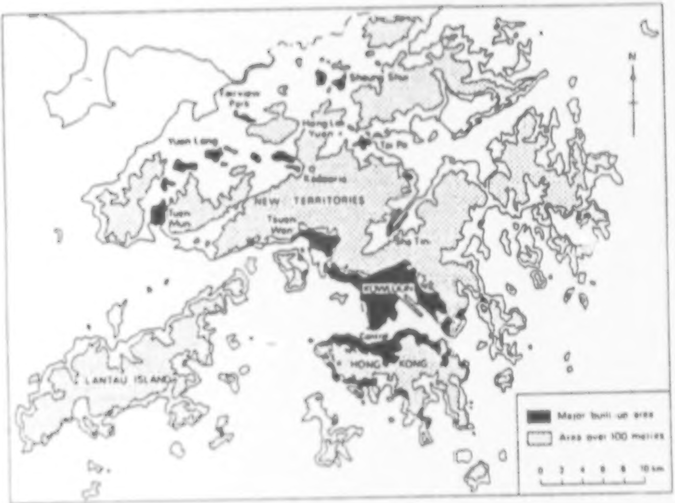
N
Sheung Shui
Fairview Park
Hong Lok Yuen
Tai Po
Yuen Long
Kadoorie
NEW TERRITORIES
Tsuen Wan
Tuen Mun
Sha Tin
KOWLOON
Central
HONG KONG
LANTAU ISLAND
Major built up area
Area over 100 metres
0 2 4 6 8 10 km

Figure 1 Location Kadoorie Farm and the instrumented basin

Table 1 Instrumentation installed at Kadoorie

Instrument	Measurement Determinand
Rain gauges	Rainfall
Stage Recorder	Water level
Stemflow collectors	Stemflow
Throughfall gauges	Throughfall
Tensiometers	Soil moisture
Infiltrometer	Infiltration
Isco Model 47 Water Sampler	Water Quality and Sediment concentration
PHOX conductivity meter	Specific electrical conductance and water temperature

Use of an instrumented basin for undergraduate teaching

An instrumented basin such as that at Kadoorie can be used in many ways for undergraduate teaching. It can be used to provide practical "hands-on" experience with a variety of instruments and measurement techniques. For example, third year undergraduate geography students taking the hydrology option at Hong Kong University are able to examine and use instruments for measuring rainfall, interception, stemflow, infiltration, soil moisture and water level or stage. The students are also taught the velocity area and dilution gauging methods of discharge determination along with the use of the stage/discharge rating relationship to convert the water level record into one of flow. Without the basin it would not be possible to teach the undergraduate course in hydrology effectively for they would be unable to gain experience with the instrumentation and techniques that are required in hydrology. Prior to the creation of the basin at Kadoorie there existed no catchment in Hong Kong where a large variety of equipment was available for inspection and use by students. The importance of a knowledge of instrumentation and methods in the teaching of hydrology is emphasised by the report on curricula and syllabi in Hydrology produced by UNESCO (1972).

It is further suggested taht data gathered in the basin is an important teaching resource. Furthermore in the case of the basin at Kadoorie it is suggested that the data gathered is especially valuable. This is because some of the data being collected is not being gathered elsewhere in Hong Kong. For example, the data on throughfall, suspended sediment production and storm period water chemistry is unique to this basin.

The Study Basin and 'A' Level Geography

In respect of 'A' Level studies an instrumented basin such as that established at Kadoorie may be of more immediate benefit to students following an English as opposed to a Hong Kong syllabus. This is because for a number of English syllabi hydrology is a clearly defined part of the syllabi and the study of the hydrologic cycle using a systems approach within the drainage basin is often encouraged. The hydrologic cycle in the Hong Kong exams system is studied only in so far as it is relevant to landscape development. The study of water is only relevant in so far as it controls, for example, erosion and weathering.

Where hydrology and the drainage basin hydrologic system is an important component in 'A' level studies there are a number of reasons why a visit should be made to an instrumented basin. Firstly, observing instruments designed to measure precipitation, throughfall, stemflow, infiltration and discharge may help to clarify many of the components of the hydrologic cycle. Secondly, instruments such as infiltrometers can be used to conduct quantitative fieldwork. Thirdly, measurement techniques can be learned. For example, discharge measurement and infiltration. Finally, data colelcted in the basin can be made available for practical work on the hydrologic cycle. These might range from simple to more complex data interpretation exercises.

It is suggested that within Hong Kong the use of data from the basin at Kadoorie might be especially valuable. This is because, unlike, for example, Australia, the United States and Great Britain, there is very little data available for the Territory to illustrate some of the processes of the hydrologic cycle. In consequence teachers must use overseas examples to illustrate the functioning of the drainage basis hydrologic cycle. They can be obtained from texts such as Newson and Hanwell (1982), Jones (1983) and Hilton (1985). Consequently, in Hong Kong schools teachers are unable to introduce hydrology using local examples. Instead of working with information for a familiar area teachers are forced to use examples from countries or regions that are not familiar to the students. It would be much more satisfactory to be able to begin with Hong Kong examples and then expand the subject by moving to contrasting regions. The recent publication by Peart and Stimpson (1990) provides some data for Hong KOng on the hydrologic cycle.

The paucity of local teaching materials for Hong Kong is evidenced by the lack of availability of good examples of such simple hydrologic data as the storm hydrograph and thehyetograph of it's causal rainfall. Only a few specialist government reports contain such data. They are not available to teachers. However, data gathered in the basin at Kadoorie can be made available because it is not subject to circulation restrictions. It is planned to publish the data in, for example, the Hong Kong Geographer in order to make it accessible to teachers. Figure 2 shows a succession of storm hydrographs along with causative rainfall measured in the small basin at Kadoorie. The data in Figure 2 can be used to pose a number of questions about rainfall and runoff.

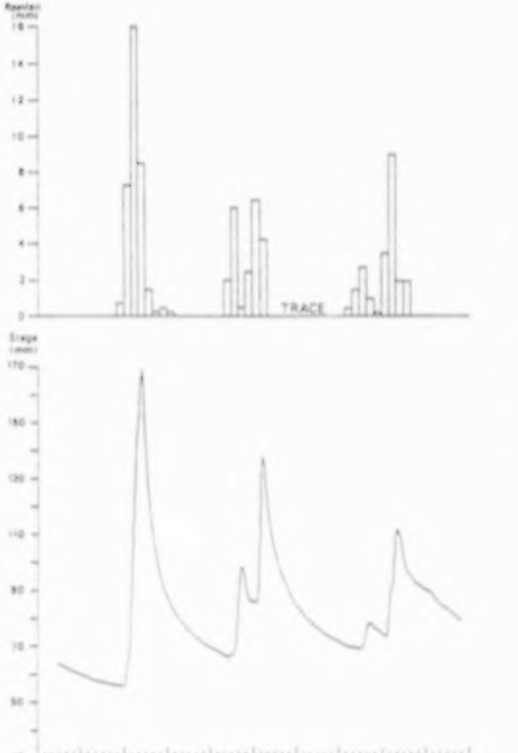

Figure 2 Storm hydrodrographs and hyetographs

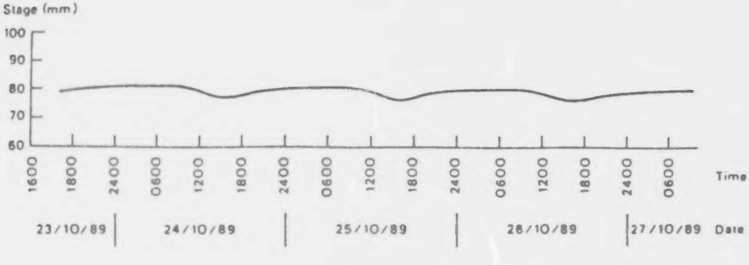

Figure 3 Daily variations in base flow

A more difficult hydrograph for students to interpret would be taht of Figure 3 which illustrates diurnal fluctuations in water level and, hence, discharge in the stream. The diurnal fluctuations in water level may be due to changes in evapotranspiration rates between night and day in the basin. Figure 3 provides an intesting alternative way of illustrating the reality of the evapotranspiration process in the drainage basin.

It can also be argued that information on the drainage basin hydrologic cycle such as that presented in Figures 2 and 3 may be of interest to teachers outside Hong Kong. This is because it provides information against which to contrast their region or area. For example in Hong Kong the rainfall input has a marked seasonal pattern (see Figure 3). This seasonality reflects the monsoons along with the incidence of tropical cyclones.

Ward (1971) indicates that instrumented basins such as that at Kadoorie can be used to investigate sediment production. This type of work and the associated data is of more direct relevance to 'A' level students in Hong Kong. This is because in the Territory the 'A' level syllabus emphasises the role of water in landscape development rather than concentrating on hydrology.

Erosion and sedimentation is being studied at Kadoorie. However, it would be difficult to justify a field visit to the study site to investigate erosion except during periods of rainfall. It is only during times of heavy rain that the stream becomes discoloured by sediment and provides evidence of fluvial erosion.

The data obtained from the erosion study at Kadoorie may be of benefit to local teachers. For example, the suspended sediment/discharge rating derived in the study basin and shown in Figure 4 could be used to introduce the concept that sediment is dependent upon discharge. Figure 4 reveals that as discharge increases so does sediment concentation. The students could be asked to explain the association and determine it's significance for conditions under which sediment is most likely to be exported from the basin. The correlation coefficient and scatter in the relationship between suspended sediment and stage reveal that discharge is not the only control upon sediment in the basin. These observations could be used to identify other controls upon sediment production.

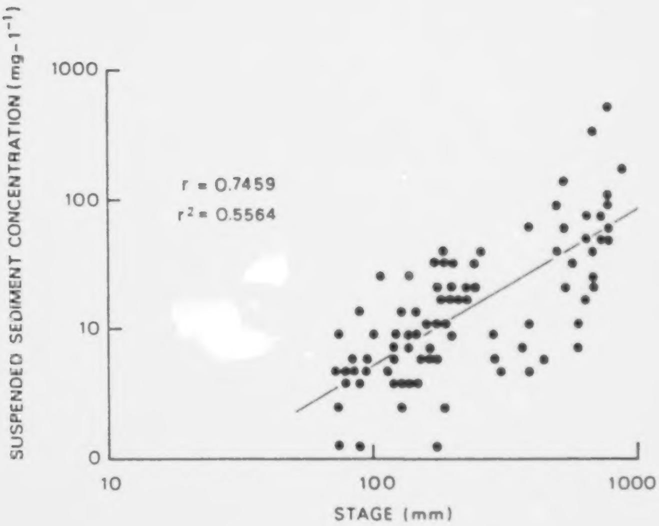

Figure 4 Rating relationship between sediment and water level or stage

Problems with instrumented basins

Instrumented basins such as that at Kadoorie are expensive to establish and even more costly to maintain. For example, the basic instrumentation has cost in excess of HK$1-00,000 dollars. A research assistant is employed to maintain the instruments at a cost of HK$75,000 per year. Additional water quality analysis in Kadoorie and Geography and Geology Department laboratories add further costs to data collection. These costs cannot be justified solely for teaching purposes.

The accommodation and relatively flexible University timetabling make undergraduate use of the basin at Kadoorie very practical. However, for many schools in Hong Kong the location of the basin at Shek Kong mean that it is not too accessible (see Figure 1). A full day would be necessary for a visit. This may cause problems with release of students from other lessons. There may not be enough of interest for many teachers to justify the full day away from school given competing demands upon time.

Conclusion

The benefits of an instrumented basin in teaching to undergraduate and 'A' level students have been outlined. The problems of cost and accessibility are discussed.

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SELECTION AND DESELECTION IN THE HONG KONG GEOGRAPHY CURRICULUM

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Abstract

Curriculum planning involves the selection and exclusion of content. This paper examines the nature and influences of this in the case study of the geography curriculum in Hong Kong. The choice of topics and regional examples from the Junior Secondary Geography curriculum is described. The content largely reflects variations on the UK syllabus of 20 years ago and stresses knowledge of people and places. Places and issues of significance to young citizens in Hong Kong are often omitted. These omissions are ascribed to the antecedence of the curriculum, the beliefs and interests of geography teachers and to the pervading climate of caution in planning.

Introduction

Planning curricula involves decisions of what content, skills and values to include; at the same time choices are made as to what should be excluded. Exclusion, or in effect deselection, sometimes occurs through neglect because important questions of purpose and intent are not thought about and not asked. On other occasions the decision to take one direction in a curriculum rather than another may reflect a more conscious choice by those involved. Often there is not so much an explicit decision to omit particular aspects, but instead an unspoken consensus not to discuss certain options, and

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hence deselection occurs by default. Selection (and deselection) arisefor a number of reasons. In centrally planned, or directed, systems there may be a desire to focus the curriculum towards particular ends perhaps for reasons of nationalism or economic need although some, such as Moon (1987), have doubted the capacity of governments to exert control. At other times and places it is the forces of conservatism maintaining the status quo which determines what continues to be taught.

Whilst there have been a number of studies looking at factors influencing levels of adoption in respect of the classroom uptake of change (see, for example, Schon, 1971; Humble and Simons, 1978; Boardman, 1980,1988), less attention has been paid to attitudes and beliefs in the planning process. In most planning committees there are conservative laggards, a possibly sceptical but receptive middle ground and a group of more radical innovators. It is the interplay between these people and their beliefs within the system in which they function that the reasons for selection, and for deselection, are likely to be found.

Planning of the curriculum involves consideration of four aspects: policy, design, implementation and evaluation. Concern here is particularly with policy and design although it is undoubtedly hard to separate the four interacting components. Policy has perhaps, until recently, received the least attention although work such as that of Naish (1989) in geographical education concerned with the impact of centralization on the curriculum indicates that this is changing. The policy perspective causes us to examine the role of school subjects within the overall purpose of education. For example, in the case of geography: Is the main desire one of enhancing economic awareness? Is the substantive content subsidiary to the development of thinking, communication and interpersonal skills? Or is our aim to increase young peoples' knowledge of places? Do we seek to produce a more effective and prepared workforce or are questions of social and/or environmental responsibility more important? Do we wish to encourage active participation in environmental improvement or do we seek only a better informed population? In general, we probably would say 'yes' to all of them and consequently rhetoric abounds in many statements of curriculum aims. In reality there are usually priorities and these determine the policy adopted and decisions about the direction the curriculum takes.

Making appropriate decisions is vital and failure to do so has often led to curricular contradictions (Gilbert 1982) in geography as in other subjects as the kind of knowledge presented to children does not assist them in confronting the problems and controversies found in life. This is not to say that geography should be no more than world current affairs, but rather, as Snook (1987) suggested, "the trick of teaching is to recognize both the perennial and the contextual aspects of the curriculum and to unite them is such a way that while operating within a social context people see themselves as engaged in the timeless task of educating human beings." This view highlights the importance of social context and need to be aware of selection and deselection which may be taking place.

The purpose of this paper is to examine the pattern of selection and deselection within the Junior Secondary Geography Curriculum in Hong Kong and to suggest possible reasons for those choices. The analysis is divided into two main parts: firstly, regional selectivity and, secondly, topics and issues; in conclusion some causes are suggested. In order to set the context and provide necessary background, geography teaching in the Hong Kong system is briefly outlined prior to this discussion.

Geography in the Junior Secondary School of Hong Kong

In Hong Kong there are 9 years of compulsory schooling, six years in the primary system starting at age 6 and three years in the Junior Secondary School. In practice most children (85%) stay on for a further 2 years of senior secondary education; hence the Junior Secondary Curriculum has to be seen as a part of a wider continuum.

Geography is not a compulsory subject in the Junior Secondary School but it is taken by about 80% of children, the remainder taking either social studies or economics and public affairs (EPA). Curricula are centrally planned by a team from the Geography Curriculum Development Committee set up by the Government Education Department. This is a large committee comprising senior teachers, government inspectors and nominees from tertiary educational institutions. Writing of the document, however, tends to be concentrated in a small group and the committee is largely run by the inspectorate. Nevertheless the aim is to reach consensus within the committee as a whole and with the schools when the curriculum document is sent out for consultation.

The Junior Secondary Geography Curriculum is a derivative of a U.K. curriculum a decade or more ago. It uses a regional systematic framework which was developed out of "the Local Region", "Southern Continents" and "North America/Europe" mould. In its most recent revision in 1983, this was replaced by "Living in the Local Environment and Understanding Our Neighbours", "Living on Lands of Diversified Environments", and "Living in Lands of Advanced Technological development"but continued to use the previously taught regions as case studies. The general aims are stated as:

1. *To enable pupils to understand various concepts in geography with a view to developing a geographical outlook;*
2. *To promote pupils' knowledge of the homeland and other parts of the world;*
3. *To develop skills basic to geographic studies; and*
4. *To cultivate personal development and encourage attitudes conducive to full participation in adult life.*
   (Curriculum Development Committee, 1983)

Regional Selectivity

The Syllabus for Geography (Forms 1-111) sets out the aims and content to be taught. Additionally it suggest the number of 40 minute lessons which should be allocated to each topic. This information can be used to provide a broad, if crude, measure of the regional coverage and emphasis.

Approximately 75% of the lessons are within a regional framework at continental, country, provincial or city scale. The global coverage within the three years of the syllabus is given in Figure 1. On the map, each small square represents one lesson. The areas of the circles are proportional to the total number of lessons given on topics drawing examples from that continent.

In Form 1 (12-13 year olds), where the focus is on the local area and its neighbours, emphasis is given to Hong Kong (53%) and China (22%). In year 2 (13-14 year olds) greatest emphasis is given Australia and New Zealand (31%) whereas only 18% of the time is allotted to Africa and 23% to South America. Within Africa and South America, coverage is piecemeal with regional case studies drawn from Ghana, Libya, Morocco, Egypt and Kenya within the former and Brazil, Peru, Bolivia and Argentina within the latter. Year 3 (14-15 years olds) gives approximately equal treatment to North America (37%) and Europe (39%). The Prairies, the Mid West, Southern California, British Columbia, The Great Lakes Region and the N.E. providing regional examples from the former and UK (London), France (Paris), The Netherlands, Switzerland, Scandinavia and Spain or Italy from the latter.

This coverage has to be matched against the relative importance to young people in Hong Kong of various places in the world. One indication of this is from trading patterns. Figure 2 shows the top 10 countries in terms of either imports or exports of

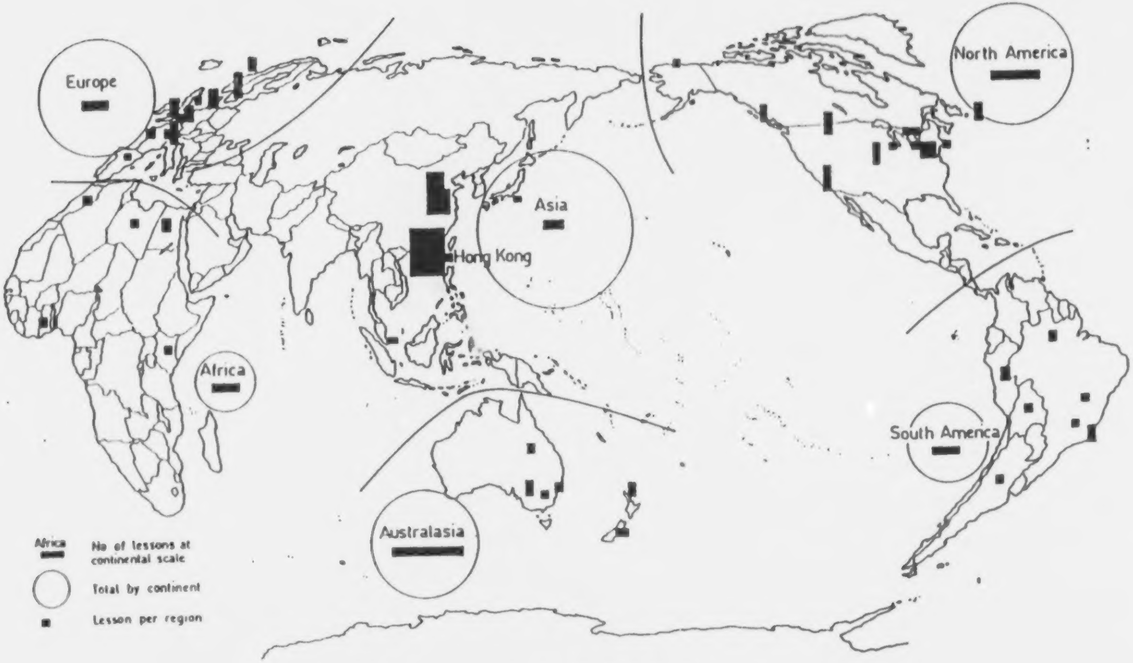
Europe
North America
Asia
Hong Kong
Africa
South America
Australasia
Africa
No of lessons at continental scale
Total by continent
Lesson per region

Figure 1: Regional coverage in the F.I-III Syllabus

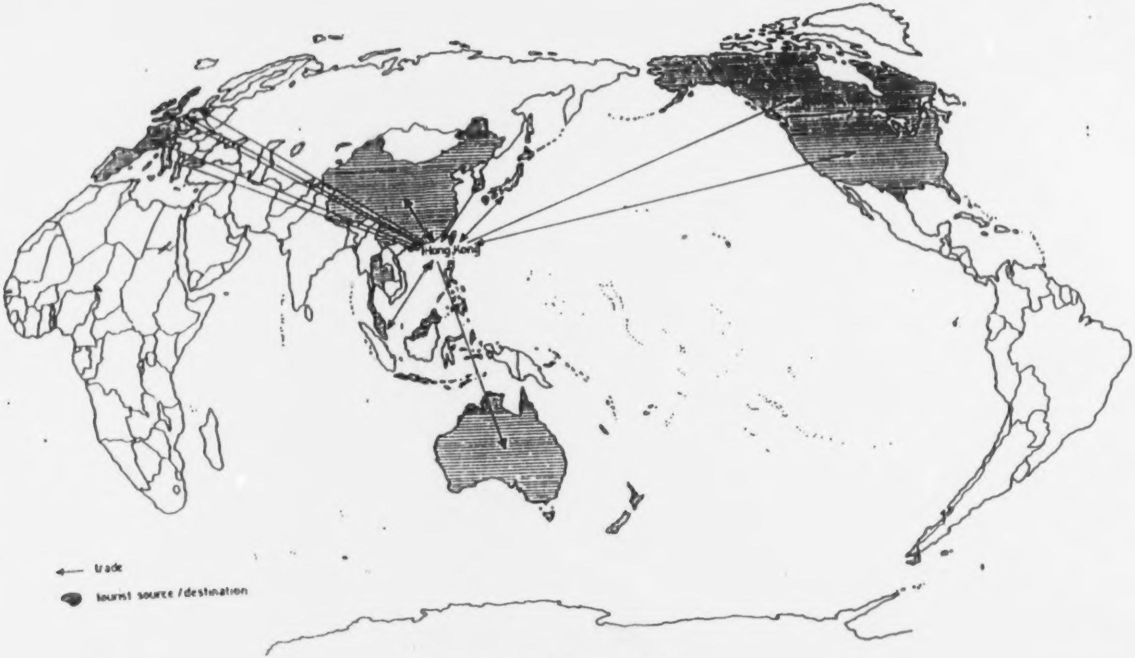
Hong Kong
trade
tourist source / destination

Figure 2: Trade and tourist links

Hong Kong. It also shows the main overseas tourist destinations for people in the territory, and sources of tourists coming to Hong Kong. China, the U.S.A., Canada and Western Europe loom large in both. The congruence with coverage seems good. Similarly one could consider emigration destinations such as Australia, New Zealand, Canada and the USA; again there is a match. However there are omissions and the importance of Taiwan, Japan and Korea is not recognised.

Locations chosen for study from well represented regions also give rise to comment. For example in North America there are strong links between Hong Kong and Vancouver, Los Angeles and Toronto. Perhaps one of these cities might have been preferable to illustrate urban zones and urban problems than Chicago or New York which are frequently used.

In earlier syllabi greater emphasis was given in Year 3 to Britain. Today this is replaced by a European perspective reflecting international trading and cultural links with EEC countries rather than the former colonial dependency with UK. Other aspects of internationalism, however, are neglected. Three important national minorities in Hong Kong are the Indians, the Filipinos and, most recently, the Vietnamese. The Indian community has a long history in Hong Kong which goes back 3 or 4 generations. There are about 50,000 Filipinos and about 10,000 Vietnamese in Hong Kong although most of the latter are in detention camps. There are also sizable Pakistani, Malaysian, Japanese, Thai, Singaporean and Portuguese communities, some of whom are long term residents. As in many countries the multicultural make up of society is slow to be recognised in the curriculum.

Similarly, insufficient attention is given to places of origin of Hong Kong people from China. About 60% of the present population was born in Hong Kong; of the remainder most originated from Guangdong Province. Despite this, when dealing with "Our Environment and Neighbours", Shanghai is selected as a example of a multifunctional city in preference to Guangzhou (Canton).

Of possibly greater concern is the absence of learning about long term global "hot spots". Figure 3 is an attempt to illustrate this by showing some of those which are covered by the syllabus and those which are not. As noted earlier, Africa is dealt with insufficiently; no attention is given to South Africa which has been undergoing turmoil for a considerable period. In like manner, the Sudan-Ethiopia region, which has been plagued by drought and famine for much of the '80s is omitted. Lest it be thought that geographers deal only in disasters, no lessons are suggested on successful wild life conservation activities in the Game Parks of, for example Kenya or

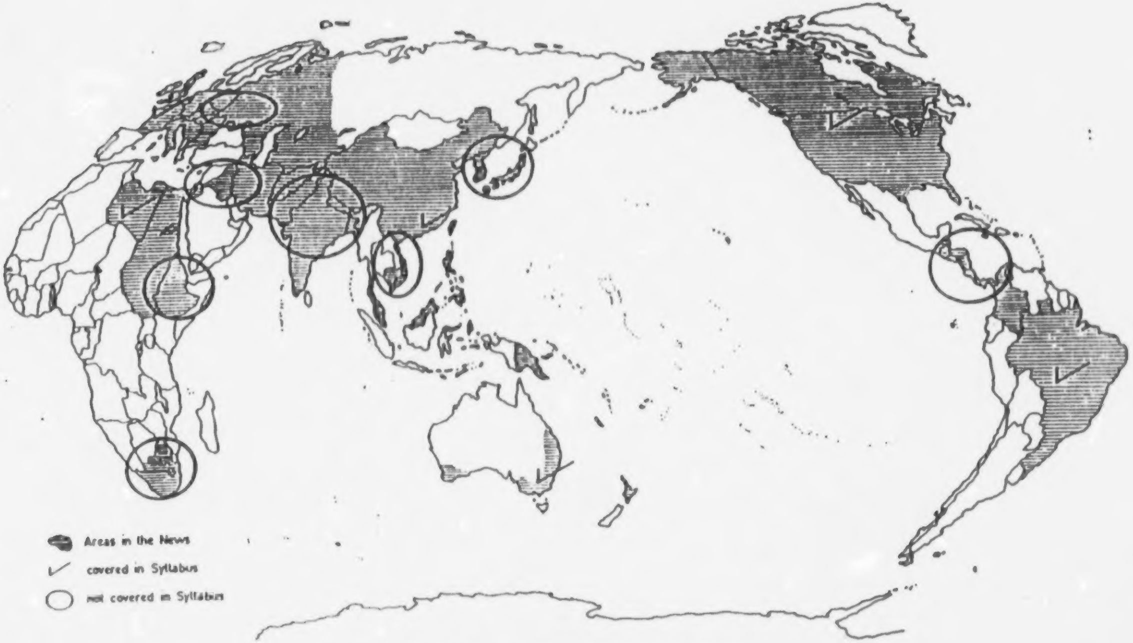
Areas in the News
covered in Syllabus
not covered in Syllabus

Figure 3: Regional zones of general current interest

Zimbabwe, despite Hong Kong's previous part in the now banned ivory trade. For much of the '80s there has been conflict in the Middle East between Iraq and Iran, between Israel and Arab countries, within Afghanistan and Tibet and, most recently in Kashmir. The geographical background to these events, which are witnessed on TV, is rarely discussed in geography classes. Nearer to Hong Kong, IndoChina is a forgotten region and yet this is a major source of tension. Newspapers report on the Vietnam boat people issue but geographers make no contribution in the classroom towards understanding the conditions in that country which give rise to migration. It is clear that questions of regional selection cannot be separated from that of topic selection which is now discussed.

Selectivity Among Topics

Topics covered in Forms 1, 2 and 3 are given in Figure 4. Their characterising feature is their conventional nature reflecting a formal, "academic" type of geography. The focus of attention is generally on knowledge about the parts of the world selected for study. Comprehension of key relationships is frequently directed towards understanding the possibilities and limitations of what the natural environment can provide.

For example in the treatment of agriculture, spatial patterns and the way of farming in relation to the environmental conditions are highlighted. In Form 1 crop variation in China is explained in terms of spatial change in climate. In Form 2, Masai nomadic herding is dealt with alongside cattle farming in the Australian Outback linked to the problems of seasonal drought. Similarly, in Form 3 the environmental controls on agriculture in Southern California are discussed. This is not to say that these are ungeographical or not valuable but rather to question whether these topics might not be taken in other directions. Cultural values and technological solutions might be alternative treatments in tropical grasslands. Political decisions and solutions to the feeding of 1 billion people in China might be a more vital focus. In California the issue of seasonal Mexican workers and their exposure to pesticides has been a long running issue.

Similar questions can be raised in respect of industrial geography. The use of technology in Europe and North America is dealt with in Form 3, and undoubtedly this has had an important influence on the nature and distribution of industry. However during the '80s and into the '90s, patterns of unemployment have been as important as those of employment. Footloose industries, frequently

Topics	No. of lessons
Mapwork	5*
Landforms	11
Climate/weather	9
Climate/vegetation	9
Colonizing	3
Colonialization	1
Population	13
Population problems	4
Agriculture (patterns and causes)	28
Problems facing farmers	6
Fishing (patterns and causes)	1.5
Problems facing fishermen	0.5
Mining (patterns)	9
Impact of mining	3
Manufacturing (patterns and causes)	19
Impact of Manufacturing	1
Types of employment	3
Urban land-use	12
Urban problems	6
Development issues	7
Transport	10
Transport problems	1
Economic relationships	5

* A larger proportion is envisaged as mapwork is integrated into other topics.

Figure 4 Relative importance of topics in the Junior Secondary Geography Curriculum

ignoring the effects of raw materials, power, transport and market have had a greater role in peoples lives as have developments in the service sector. It seems to be taken for granted that the factors of location are better illustrated by looking at steel works rather the electronics factories, theme parks or hypermarkets.

Problems of the fishing and timber industries and the impact of manufacturing and mining on the environment are included. However, these problems are discussed as consequences of development which are solved by careful planning. Controversy is avoided. Issues are rarely treated in an open ended manner. In general there is, as has been similarly noted in the UK (Gill, 1984), a use of language in classrooms and textbooks which is bland and neutral avoiding contentious issues. "Many topics regularly dealt with in geography are controversial by implication. What is new is the deliberate and systematic exploration of such topics so as to develop our pupils' capacity to think" (Bailey, 1989). Controversy has been slow to be taken up in Hong Kong. In the next section we examine some of the causes for this and other aspects of content selection.

Causes

Controls on the curriculum are generally notoriously difficult to pin point beyond recognizing trends and suggesting key events. Curriculum decisions are the product of the deep beliefs held by those responsible for design and implementation. In this section three possible controls are discussed, namely: teacher interests; the education system and government.

The interests of geography teachers in Hong Kong have been examined by Speak (1979) and by Gerber (1990). Speak's analysis of the views of 29 Hong Kong teachers required participants at a GA seminar to prioritise objectives out of a list of 68 items originally produced by Slater and Spicer. Then teachers saw their priorities as developing understanding of value of geography in interpreting world problems in particular in respect of man-environment ecosystem issues and their solution. Developing an understanding of spatial relationships, of processes and other concepts, whilst seen as important, was accorded low priority. These results, albeit in the context of sixth form geography suggest the syllabi is out of step with teachers' beliefs about what should be taught. Gerber's more recent study, however, showed that, whilst man-environment was still an important idea, preparation for citizenship, living and working were not important priorities. Indeed only 3 of the 25 participants in his survey agreed that geography in Hong Kong should deal critically with political issues. Similarly creating awareness of social justice and empathy with other races was not strongly emphasised. Furthermore, Gerber showed that teaching strategies were directed more towards knowledge transmission than active learning. His work indicates that, whilst issues are taught, they are dealt with in a clinical knowledge transfer manner; commitment to the social and environmental situation seems subservient to more formal systematic geographical understanding. In particular political issues are avoided.

Part of the reason for the present pattern is to be found in the origin of the curriculum. As noted earlier it is a derivative of the UK regional junior secondary syllabus of the 1950s and 60s. The centralized version in Hong Kong, although nominally a suggested program, in reality provides little opportunity for variation and experiment. Furthermore the curriculum is slow to change and seems to last at least 10 years. The committee design process, whilst seeming to involve considerable participation, has been criticised in a general sense by Morris (1989) who suggested that often the most innovative teachers are not those necessarily involved on curriculum development committees, other criteria such as seniority perhaps being more important. The effect of interest groups is often strong and the future needs of university entrance by the minority has to an extent sometimes dominated the needs of the majority who will leave school. Leadership and the identification of a focus for change has been major problem. Government inspectors who should have a key role to play often only spend short periods of time looking after geography before being moved to other duties as a part of their career progression and hence there is limited opportunity to develop a long term policy. The bureaucratic nature of curriculum development often works in effect, although not by design, to slow change. This effect is amplified by a teaching force which until recently was reluctant to take its future in its own hands being more concerned with day to day events, and the percentage pass in the public examinations because this is the perceived measure by society of their competency. This, however, is found in many countries (see, for example in the UK, "Pupils get raw deal," 1990) although the diploma disease and its impact on the curricula seems more virulent in developing countries.

There is evidence since the 1930s of Government influence on the school curriculum in Hong Kong (Sweeting, 1989). During the 1930s and the early post war period there was considerable activity designed to minimize firstly the influence of the Kuomintang and secondly the influence of the Communist Party. Today the fears of this period have largely disappeared but it is open to question how far those earlier attitudes still pervade thinking. Education Regulations of 1971 sought to control the political dimension in schools. Education in any way political or party political in nature and prejudicial to the public interest was not permitted (Morris, 1989). This has only recently been partly rescinded. No doubt similar regulations exist in other countries but, in Hong Kong, this environment created, or enhanced, a climate in which a cautious approach is taken to values questions. Hong Kong people tend to avoid conflict a feature which has been attributed to the Confucian attitude to authority and the large refugee element in the population which survived in previous times by acquisition (Bond and Hwang, 1986).

Many see the primary purpose of schooling as the provision of a trained and economically useful labour force with appropriate attitude to work. Those who advocate a change generally lack a forum and access to the decision process. The role of lay people in government decision making is mainly advisory. It has, however, to be pointed out hat the destiny of Hong Kong has always been determined by outside parties namely the U.K. and the PRC. Whilst the control may not usually have been direct, there is nonetheless a sensitivity in the Territory to that which is thought to be expected. Hence a tension often exists between local aspirations and perceived external expectations. In this climate a cautious approach is taken to change at many levels including the school curriculum.

Education is seen as providing knowledge about the environment rather than the examination and questioning of different value positions for action in order to improve the environment. The purpose to which certain influential sections of society ascribe to education mitigates against a focus on controversial issues in the mainstream. Moreover when controversial issues are examined, frequently the solution is seen in terms of successful planning by government. However, it is easy to be critical in these sensitive times facing Hong Kong during the 1990s.

Conclusion

This paper has tried show that what is included in a curriculum and which is excluded is influenced by a complex interaction of interested parties all of whom are influenced by the social and political framework of the present and recent past. Together, with some facets more prominent than others, they seek to influence the nature and purpose of the geography which is taught. In the case of Hong Kong Junior Geography Curriculum, there is not so much an overt sinister influence by those who control the curriculum but rather a pervasive climate which fails to encourage the opening up of new and possibly more worthwhile directions.

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HONG KONG'S GEOGRAPHY CURRICULUM IN A CHANGING POLITICAL ENVIRONMENT

Edward Woo & Chiu-ming Luk
Hong Kong

Introduction

There is no universal concensus on the exact purpose of teaching geography at school. To some educators, geography is important to provide the students knowledge which is indispensable to an understanding of the world. To others, students' love for their own countries and sympathies for other peoples and their lands are more significant. Of course, geographers are more concerned with instilling into students' minds the concept of man-environment relations or skills of observation and measurement (Marchant, 1971).

At a more complicated level, geography curriculum fulfills roles which involve the social and political contexts of that society. Sir Keith Joseph, United Kingdom's Secretary of State in Education listed three aspects where geography has particular value to the school curriculum. First of all, the issue of how geographical education approaches complex and politically contentious problems. Secondly, the idea of how people react to their environments and the way in which geography teachers illuminate the conditions where human enterprises flourish. Thirdly, there is also the suggestion on how geography teaching helps to promote economic awareness and political understanding. While the second issue is often given attention to, the first and the third have not received adequate treatment, at least in the context of Hong Kong.

Hong Kong, as a British colony, is often criticized as being politically apathetic. In terms of school curriculum, this is even more so. For geography, like other disciplines, guidelines on what to teach are laid down by the Curriculum Development Committee of the Education Department or later the Curriculum Development Council and the Examination Authority. The basic concepts and ideas to be

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taught in secondary schools are mostly geared towards geographical understanding of the world without any attention given to issues which promote students' understanding of the political milieu.

In 1984, the Sino-British agreeement on the future status of Hong Kong was signed. By July 1, 1997, Hong Kong will become a Special Administrative Region of the People's Republic of China. For the geography curriculum prepared before 1984 or amended after the same year, it is totally divorced from a consideration the changing relationship between China and Hong Kong. The causes behind such omission have been investigated by scholars (Stimpson, 1990); however, they are out of the scope of this paper. Yet, the consequences of such omission is worthy of serious discussion. The present paper is an attempt to deal with the lack of attention of the "China element" in Hong Kong's geography curriculum, particularly in junior secondary schools. We strongly believe that the effects of political changes associated with 1997 will come much earlier. This surely demand urgent attention and rectification in our geography curriculum to take into account the future political status of Hong Kong and the associated need of its new generation of citizens.

The "China" Element in the School Curriculum

In retrospect, China was never a large topic to be dealt with in the secondary school geography curriculum. Yet, before the 1960s, different aspects of China's regional geography were taught in senior secondary schools. This was a true reflection of the importance of the regional approach in geographic philosophy at that time. By the late 1960s, the "quantatitive revolution" had taken its root in the whole discipline. Hong Kong's geography curriculum took a new look by discarding substantial portions of its regional elements. So, China was only studied and examined in the Form Five Certificate of Education Examination in case studies form. For example, students were asked to study agriculture in the North China Plain and Sichuan, without any need to know different aspects of China as a coherent whole.

Serious consequences emerged. The study of China became fragmented and marginalized. Students need not learn anything about China to tackle examination questions. The urge for learning about China was further weakened by the negative image of the Cultural Revolution (1966-76) and the meagre publications available for meaningful reference at that time. The low profile of Chinese geography dragged on into the 1980s. The geography of China together with other regional geography elements were eradicated from the Advanced Level syllabus which focussed on the landscape approach. So, unless an individual teacher is willing to prepare case studies about China, geography students will never know about China in sufficient details before they receive tertiary education.

The situation is better in the junior secondary curriculum where some aspects of Chinese geography are intermingled with those of Hong Kong. However, several pitfalls exist. These regional topics are mixed with the concept approach and when taught in junior forms, students often find them difficult to grasp. Also, Hong Kong and China together constitute a heavy load for both the students and the teachers as only two periods of 40 minutes each per week are allocated for them. Because of the difficulty of the *pinyin* spelling, students are also frustrated. Some teachers even treat portions of the curriculum on China as dispensable as they too are often barely informed of what are going on inside China.

Importance of a New Curriculum for a New Era

When the Hong Kong Geographical Association held its exhibition on "Geography and Tourism in China" in 1989, an eminent educator pointed out the lack of understanding of Chinese geography in the general public as well as the seconday school students:

> "The citizens of Hong Kong often lack a systematic supply of information in the understanding of China. This can be seen in the contents of the primary and secondary curricula, especially in the subject of geography. Despite the approaching of the year 1997, students are not introduced to a systematic understanding of the geography of China within the secondary school curriculum." (Tse, C.W., 1989).

Hong Kong's return to China to become a Special Administrative Region in 1997 is an undeniable fact. It is important to note that students of today will be leaders of tomorrow's society. In particular, the promise from China is "to run Hong Kong by its local people". Yet, if the dearth of China understanding continues because of the persistent lack of China contents in formal secondary school curriculum, both the interests of Hong Kong and China will not be entertained.

The Suggested New Curriculum: A Closer Look

Our earnest desire is to promote a more formalized approach in the understanding of China in the geography curriculum of junior secondary schools. The appalling lack of treatment of China topics here in Hong Kong is even more severe when one looks at the situation across the border in the People's Republic of China. The treatment on topics about China's geography occupies almost two school years. Even in the recently revised version, a 30% share in the curriculum is still allocated to such attention (Zhonghua Renmin Gonghuoguo Guojia Jiaoyu Weiyuanhui, 1988).

In considering the rapid change in Hong Kong's political environment in the 1990s, we propose the following curriculum structure for Hong Kong's junior forms which cover three years of education. It is divided into three major content areas into which various themes and concepts are introduced. They are summarized in Figure 1.

Level	Major Concept	Major Items
Form One	Living in the Local Environment	A Study of the Geography of Hong Kong and the Basic Skills Used to Understand It
Form Two	Living in China	A Study of Its Natural and Human Systems, Plus Their Interactions
Form Three	Living in the World	A Study of World Development Issues

Figure 1Summary of New Suggestion on Geography Curriculum of Junior Secondary Schools

The specific feature of the new curriculum is the inclusion of a full year of study of the geography of China. The present arrangement allows for a more comprehensive understanding of our environments, starting from the most immediate to the whole world. This is a better way to help the students realize the surroundings in which they live.

Under the new curriculum, Form One students will be taught the basic skills in geographical inquiry and to use them in the understanding of the features of their immediate environment. It can be their home or school districts. Teachers are encouraged to lead their students through observations and experience in the field or furthering practical work. It is hoped that community spirit may be promoted and a sense of concern for the Hong Kong society will be cultivated in the minds of these future leaders.

At the other extreme in Form Three, students will be taught about other parts of the world. Not only physical features of diverse landscapes will be introduced, but also worldwide problems which man is facing are critically assessed. Themes of development or lack of it, harmony or conflict will also be discussed. The approach is geared towards an understanding of the issues rather than fact memorization.

Sandwiched between the two years in the second year of junior forms is the emphasis on the geography of China. At present, China is our immediate neighbour; but in the not-too- distant future, Hong Kong will be a subordinate part of the People's Republic. This necessitates a comprehensive and holistic treatment of the geography of the whole country in the curriculum. Understanding the fundamental geographical elements of the country forms the basis of a national identity for the citizens of Hong Kong living under the "one country, two systems" principle. A full synopsis of this full year of treatment is given below.

Geography of China for the School Curriculum in the 1990s

This section concentrates on the technicality of including the China element in the geography curriculum of junior secondary schools of Hong Kong. Besides giving a brief sketch of the content areas to be included, we shall also discuss the rationale, highlights, and other related issues.

First of all, why does this proposal concern only junior forms? At least two reasons may be cited. One is the restriction of the policy of compulsory education to students up to the age of fifteen. Beyond that, some young people may not even obtain any formal education. Thus, by introducing the geography of China in their junior seconday days will allow more students a chance to learn these knowledge. For those students in upper forms, geography is only an optional examination subject. Realistically, to modify content areas which involve public examinations entails much more problems than the present case. The second reason to cite is an attempt to rectify the overly concept-packed approach in the present curriculm for junior forms. We believe a careful blend of abstract concepts with concrete regional facts within the context of China topics is beneficial to students in lower forms, both in a formal educational sense and their learning process to get acquainted with China.

Specifically, the objectives of the course include the following items:

1. To understand the natural and socio-economic systems in China and their interactions;
2. To recognize the similarities and differences between Hong Kong and China;
3. To appreciate the intricacies of relationships between the two territories; and,
4. To be able to utilize the geographical skills learned in achieving the above objectives.

As shown in Figure 2, there are nine broad content areas of items to be included in this suggested curriculum. We start with basic concepts of location and spatial units to understand Hong Kong and China as a whole. Then, we proceed to discuss the human and physical dimensions of geographical variations in China. Next, the major idea of "interaction" is examined in the contexts of movement across space, interaction with nature in agriculture, and industrial development over China's landscapes. Approaching the end of the course is the introduction of broad issues like external relations, environmental deterioration, and development concerns over time and space.

It is evident that the nine content areas span a wide spectrum of facts about China. We strongly believe that students in their junior forms should receive a comprehensive coverage of important knowledge of their country. Thus, the suggested curriculum provides adequate treatment of individual items often seen in regional texts carefully linked up with contemporary geographical concepts. For example, location, spatial variations, interaction, etc. act as links for seemingly discrete elements in geographical discussions.

A second feature of note is the introduction of issues of widespread concern in our world today. Environmental degradation and economic development are hot issues in debate among Third World countries. China is no exception. With these discussions, we can bring to the attention of the students current world issues as they relate to China. As a result, China's drive towards modernization

Broad Areas	General Content
1. Geographical units	--administrative units of China --cities and counties --geographical location of Hong Kong as a Special Adm. Region
2. Human geographical variations	--people in urban and rural areas --complex ethnic groups --population distribution and redistribution: nature & cause
3. Physical geographical variations	--locate major relief features: ranges, plateaus, lowlands --locate major rivers, lakes --understand seasonal, spatial patterns of temperature, rainfall, winds
4. Movement of people and goods	--locate millionaire cities --Beijing as the national capital --general layout of transport networks and flows
5. Man-land interaction: agriculture and conservation	--intensive vs. extensive; arable vs. pastoral farming --distribution of major foodcrops --communal vs. responsibility systems --natural reserves distribution
6. Industrial development as intensive interaction	--power and minerals distribution --major industrial regions and factors of growth
7. External relations	--patterns of tertiary activities (trade and tourism)
8. Environmental issues	--various environmental problems --legal aspects
9. Development issues	--changing structure of economy and factors contributing --coast, centre, and the west --central planning, commodity economy --comparisons of two regions --policy on regional development; e.g. Special Econ. Zones

Figure 2Summary of the Content Areas of the Proposed Curriculum and its associated problems may be brought out in a more critical way.

Not the least, in discussing about contemporary China, teachers will no doubt be delving into the area of political philosophies. The idea of socialism and its impact on China's landscape provide the historical and social contexts upon which contemporary China is built. These discussions enrich and stiumulate the students to think critically about the "Chineseness" of China's problems. All the nine categories may be discussed within this framework. This is certainly of immense value to the students to understand China in a comparative sense.

To some geographers, our suggestion to reinstate regional components in the school curriculum represents a retreat from the current tide of geography which mainly emphasizes the positivist approach. In fact, geography in the West, the United States in particular, has already witnessed signs of rejuvenation of regional geography. This is a direct reaction to the over-commitment of geography to quantification and mathematical modelling since the seventies. Abstractness of positivist geography was then viewed with sceptism which deviates from the central concerns of conventional geography. Recent agruments on what constitute geography have led to people's re-investigation along the lines of regional inquiry, whereby its educational value to students began to be appreciated again. In this context, our suggestion is in no way a retreat to the past. On the contrary, the blend of current geographical concepts in regional studies is the most acceptable trend today.

What is repeatedly argued in this paper is the immediacy of the changing political environment of Hong Kong in the 1990s. Our views are in favour of direct response to such changes in the geography curriculum of junior secondary schools. While this may pose some sense of passiveness, a change in the curriculum is an active contribution to the society at large. Secondly, geography's relatively "low image" may have a chance to be elevated. When more and more people recognize the importance of studying Chinese geography in their early educational days, it will generate greater demand on teachers equipped with such knowledge. Geography will then erect a firmer foothold in the educational system in educating future leaders of the society.

Implementation: Some Points to Consider

Curriculum change in Hong Kong is a rather complicated process and is often initiated at the governmental level. Ideas have first to be put forward for lengthy discussions and deliberations before putting it into effect. In our opinion, the general awareness of the need of incorporating more China topics in the geography curriculum is not that extensive. However, as Hong Kong's general political climate is more and more China-related, the ground is now fertile enough to sow the seeds. In this regard, we are optimistic that such curriculum changes may materialize soon.

More encouraging signs have appeared in the non- governmental sector in the form of supporting activities. First of all, the Hong Kong Geographical Association, as a professional body with interests in the development of geography and its education, is the most convenient venue for discussion and exploration in the proposed curriculum. Meetings may be called and modulations conducted. Group suggestions can then be submitted to the Education Department and the Curriculum Development Council for consideration.

Secondly, as China adopted her open policy, reference materials on her are more readily available in Hong Kong than ever. It is now easier for teachers to have access to information they need in their teaching. With adequate demand, publishers will be interested to publish new textbooks on Chinese geography for use in schools too.

Thirdly, the three tertiary institutes which have geography departments are well staffed with people with keen interest in and possess extensive research experience on China. While they all turn out graduates well equipped to teach about the geography of China, extra-mural departments of these institutes can also offer additional refresher courses on China for those in need of supplmentary materials.

In the educational field, Hong Kong's colleges of education and the schools of education at both universities can also be of great assistance to promote China awareness among their enrolled students. It is undeniable that with training in teaching methods, topics on Chinese geography will be more effectively communicated to the students.

Conclusion

A geography curriculum finds its worth in being able to inform students of the world they live in, and in particular, their immediate environment and the country to which they belong. In the light of changing political status of Hong Kong and its closer link with China, geography curriculum of junior secondary schools needs to be radically revised. The inclusion of a year's course on the geography of China is beneficial to both the students and the society at large.

The present paper conveys the theoretical and contextual aspects of the curriculum on the geography of China, together with discussions on the practicality of its implementation. We anticipate further discussions and redefinitions of our proposal so as to preserve and enhance its underlying spirit. We further hope that concrete steps may be taken to promote its early implementation.

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THE APPLICATION OF GROUP LEARNING STRATEGY IN THE TEACHING OF MAP WORK IN SECONDARY SCHOOLS IN HONG KONG

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Abstract

Group Learning Strategy is used to teach Map Work in 2 junior secondary schools. Materials are sequenced into small units and corrective activities are used to ensure mastery. Students learn and cooperate in groups of 4 students with different abilities; members are rewarded for individual and group effort. Students and teachers found Group Learning Strategy helpful in learning and improving social relationships. Classes using Group Learning Strategy, however, did not result in higher achievement; the possible reasons were the short time for effects to be demonstrated and the low-achievement classes used in the study.

Introduction

In Hong Kong, with the introduction of compulsory education up to age 15 or Form III (Grade 9) in 1978 but with the maintenamce of an academically oriented curriculum, many students experience learning difficulties in school. The large classes make it difficult for teachers to give individual students the attention and help needed. Because education is the only means of upward social mobility in Hong Kong, keen competition makes students' plight even worse. The research described in this paper is an attempt to apply

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Group Learning Strategy to help students to master Map Work knowledge and skills in two secondary schools in Hong Kong.

Map Work is an important element in Geography. It requires abstract thinking and mathematical calculation skills which are sequentially built up. In Hong Kong, students learn "scale" and "direction" in Form 1, "contours" and "contour features" in Form 2, and so on, culminating in "map interpretation" in Form 5. However, students find it difficult to master the subject, and they repeat the same mistakes over and over in spite of revision. Reports from the last 10 years' Certificate of Secondary Education Examination (Grade 11) in Geography indicate that Map Work results were poor in 7 years out of the 10, fairly good in only 2 years and quite good in one year. Comments like "students made mistakes in calculation" (vertical exaggeration, gradient and area) appeared in 8 years out of 10, "poor correlation of photographs with maps" appeared in 4 years out of 10, "poor analytical thinking", "poor identification of contour features from topographic maps" and "poor knowledge of conventional signs", each appeared in 2 out of the 10 years and "failure to orientate map" in one year (Hong Kong Examinations Authority, 1980-89).

The Master Learning Strategy

One of the factors Which influenced the development of mastery learning was a 1963 article by Carroll entitled "A Model for School Learning". Carroll (1963) proposed that if each student was allowed the time needed to learn a subject to some criterion level, and if the student spent that time appropriately, then the student would probably attain the specific level of achievement. Thus the degree of learning attained by the student can be expressed by the following equation:

$$\text{Degree of Learning} = f\,(\text{time spent}/\text{time needed})$$

Carroll further identified factors that he believed influenced the time spent and the time needed in learning. Time spent was determined by a learner's (1) perseverence and (2) opportunity to learn. Perseverence is simply the amount of time a student is willing to spend actively engaged in learning. Opportunity to learn is the classroom time allotted to the learning. The time needed was determined by (3) student's aptitude for the subject, (4) quality of instruction and (5) student's ability to understand the instruction. Thus, the equation becomes:

Degree of learning = $f\left((p \times o) / (s \times q \times a) \right)$

where p = perseverence
o = opportunity to learn
s = students' aptitude
q = quality of instruction
a = students' ability to understand

Bloom (1968) was impressed by Carroll's idea which not only identified the factors which influenced learning in the school setting, but also offered a rather optimistic view that students differed in terms of the time (rather than aptitude) required for learning to reach mastery level (80-90%), and given that amount of time needed, ideally close to 80% of students would attain mastery level.

The preparation processes of the Mastery Learning Strategy are: (1) specify learning objectives and mastery level, (2) decide content, (3) divide and sequence materials into small learning units, for different units, (4) devise appropriate teaching strategies, (5) set Diagnostic Test A, (6) prepare corrective activities, (7) prepare enrichment activities, (8) set Diagnostic Test B, and (9) prepare Final Test. (Guskey, 1985).

The teaching processes for the Mastery Learning Strategy are (Fig. 1): (1) specify learning objectives to students, (2) teach Unit 1, for Unit 1, (3) apply Diagnostic Test A, (4) do corrective activities/ enrichment activities, (5) apply Diagnostic Test B, (6) apply Final Test, (7) teach Unit 2, and (8) repeat processes (3) to (6) for Unit 2.

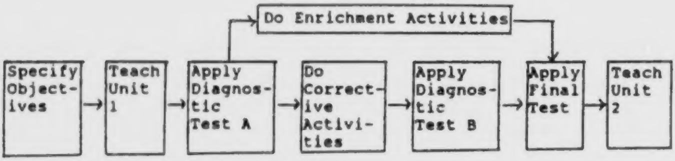


Figure 1 Teaching Processes of the Mastery Learning Strategy

Two special features of the Mastery Learning Strategy are the diagnostic tests and the corrective activities. After teaching each small unit, diagnostic tests are used to check learning progress. Diagnostic Test A certifies competent learners who then do the enrichment activities. It also identifies students who have not reached mastery level, diagnoses their learning difficulties, and prescribes specific corrective activities. Corrective activities include revision of text, study alternative materials, additional exercises and peer/teacher tutoring to ensure students master the unit when Diagnostic Test B is applied.

To return to Carroll's learning factors, the procedures of diagnostic tests and corrective activities directly improve the quality of instruction task (4), and also allow students the opportunity and time to learn task(2). Thus, the procedures indirectly heighten and ensure students the ability to understand the instruction task (5), and consequently, students are motivated to perseverence task (1) (willing to spend the time to learn) to master the instruction.

It is argued that the Mastery Learning Strategy heightens achievement, increases learning rate and self-esteem, and improves attitudes (Glathorn, 1987). Secondary school Biology in Hong Kong has produced higher student achievement. (Chung, 1979). This strategy should be particulary useful in learning Map Work which required abstract thinking and mathematical calculation, and the successful learning of subsequent units depends on mastery of preceding ones. It was adopted within the Group Learning Strategy in the teaching of Map Work.

The Cooperative Learning Model

The Cooperative Learning Model is used in the traditional classroom of one teacher teaching many students. Its special feature is that students are organized into groups of 4 to 5 each with different abilities; students are rewarded on the basis of individual and group work. This encourages cooperation and mutual help. It is unlike the traditional classroom which encourages competition where someone wins and everyone else losses; or the modern Individual Education Plan (developed particulary to help the slow students) in which a student follows his own study plan, with no competition and no interdependence, no incentive to work with or against anyone else (Reinharts, 1984).

The Cooperative Learning Model has two important elements to make it successful: positive interdependence and individual accountability (Slavin, 1987). Positive interdependence is achieved through a group task, division of labour, distributed/rotating leadership and a group reward. Individual accountability is achieved by requiring individuals to master the learning material and thereby help to gain the group reward (Dishon and O'Leary, 1984; Glathorn, 1987; Lockwood, 1988).

Cooperative Learning improves learning, raises self-esteem and enhances intergroup relations (Johnson and Johnson, 1984; Kinney, 1989). A review of 27 studies on cooperative learning in Grades 7 to 12 indicated an overall success rate of 68% in favour of cooperative over control classes (Newmann and Thompson, 1987). Another review of 70 studies on cooperative learning in elementary and secondary schools showed 57% had significantly higher achievement in cooperative than control classes (Slavin, 1987).

Cooperative learning has the following advantages (Johnson and Johnson, 1984; Ascher, 1986; Whitman et al., 1988): (1) students learn better and to a higher and deeper level (conceptual learning and problem-solving) through sustained group effort. Weak students learn because peers are able to explain the material at the right level. Strong students benefit because they gain a better understanding through organizing and explaining the materials to the weaker classmates, (2) students are more motivated to achieve higher expectations for success based on collaborative activity, (3) students develop more positive attitude towards the subject area, (4) students develop higher self-esteem founded on self-acceptance because they are more successful in school work and are better liked by others, (5) students develop closer relationship with classmates regardless of ability level, sex or social class, and (6) students develop greater interpersonal skills. Cooperative learning provides for a daily, intense, teacher-sponsored interpersonal contact among diverse students.

The teaching processes of the Cooperative Learning Model are (Foyle et al., 1989): (1) specify learning objectives and decide on content, (2) determine precise cooperative learning techniques (organization of learning task, assessment and reward), (3) assign students to groups made up of different abilities, (4) arrange classroom to facilitate group interaction, (5) teach group skills to assure groups run smoothly, (6) explain to students the purpose, procedures and activities of learning, (7) teach Unit 1, (8) monitor group learning and provide assistance and clarification as needed, (9) evaluate student learning to ensure mastery, and (10) reward group members for group success.

The Cooperative Learning Model was adopted in combination with the Mastery Learning Strategy to form a Group Learning Strategy in the teaching of Map Work. Students in a group cooperated to help one another to master the materials in the learning and corrective activity sessions. To return to Carroll's learning factors, mutual help in the group brings variety of learning situations to improve the quality of instruction (4), and increases the time and opportunity to learn (2); thus Group Learning heightens students' ability to understand the instruction (5), and consequently, students are motivated to perseverence (1) to master the material.

Learning Team Model

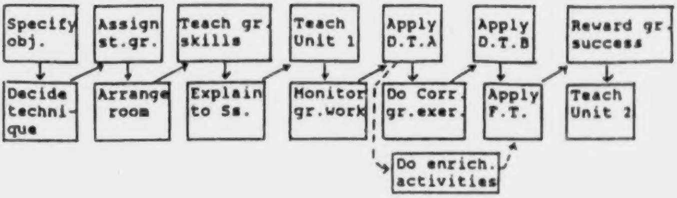
Glasser's (1972) Learning Team Model is akin to the Cooperative Learning Model in rationale and operation. The following explanation about the Learning Team Model will confirm further the usefulness of the Group Learning Strategy. Glasser in his book, The Identity Society explained that shortly after World War II, the newly affluent, television-saturated Western world moved rapidly into a society in which the major concern of most people was no longer survival. In the "Identity Society", almost everyone became much more concerned with the psychological needs of love, belonging, fun, freedom and power (Glasser, 1986).

Students like everyone else have the above psychological needs. Secondary school students passing through adolescence have stronger needs of love, belonging, fun, freedom and power. Glasser advocates a Learning Team Model in which students work together in small learning-teams of 2 to 5 students made up of low, middle and high achievers. The Learning Team Model is likely to succeed in motivating almost all students to work for the following reasons (Glasser, 1986; Wubbolding, 1988): (1) students can gain a sense of love, belonging and fun being in a learning team, (2) students are provided with the initial motivation to work, and as they achieve academic success, those who have not worked previously begin to sense that knowledge is power and then want to work harder, (3) stronger students find it need-fulfilling to help weaker ones because they want the power and friendship that go with a high-performing team, (4) weaker students find it need-fulfilling to contribute as much as they can to team effort because now whatever they can contribute helps; when they work alone, a little effort gets them nowhere, (5) students need not depend only on the teacher, they can and are urged to depend a great deal on themselves, their own creativity and that of other members of their team, this gives them both power and freedom, and (6) learning teams can provide the structure for cooperation that will help students get past the superficiality and to learn enough in depth to make the vital knowledge-is-power connection.

The Group Learning Strategy

is the Mastery Learning Strategy, Cooperative Learning and Learning Team Models combined. Two important features are, firstly, students are divided into groups of 4 consisting of low, average and high achievement helping one another mutually and they will be rewarded for group effort. Secondly, students learn Map Work in small units, slow students master the material by doing corrective exercises and being helped by other members of the group. The processes are as follows (Fig. 2):

(1) Specify learning objectives of the Map Work lessons to students,
(2) Determine precise group learning techniques. In Group Learning Strategy, students sit in groups of 4 in class. They also meet as a group to revise and do homework after class,
(3) Assign students to groups of 4 made up of students of different abilities. Roles of organizer (arranges meeting time and place), checker (checks completion of individual and group work), recorder (keeps record of individual and group work) and praiser (looks for, praises and gives a card for improvement or effort to members) are rotated among members to give every member the chance to lead and cooperate,
(4) Arrange classroom to facilitate group interaction. The teacher arranges seating in the classroom or geography room for students to sit in groups. He also books rooms for students for after-school use,
(5) Teach students group skills, such as to listen to others, express themselves and to request for help politely,
(6) Explain to students the purpose, procedures and activities of Group Learning,
(7) Teach Unit 1,
(8) Monitor and provide assistance and clarification in group learning in class and in after-school sessions,
(9) Apply Diagnostic Test A,
(10) Students who do not reach mastery level do corrective exercises being helped by other members. Students who master the material teach weaker peers or do enrichment activities,
(11) Weak students do Diagnostic Test B to ensure mastery of materials,
(12) All students do Final Test,
(13) All members are rewarded for group improvement or success, and
(14) Teach Unit 2.


Specify obj.
Decide technique
Assign st.gr.
Arrange room
Teach gr. skills
Explain to Ss.
Teach Unit 1
Monitor gr.work
Apply D.T.A
Do Corr. gr.exer.
Do enrich. activities
Apply D.T.B
Apply F.T.
Reward gr. success
Teach Unit 2

D.T.A = Diagnostic Test A
D.T.B = Diagnostic Test B
F.T. = Final Test
Corr. = Corrective

Figure 2 Teaching Processes of Group Learning Strategy

The Investigation

The Sample

Three hundred and seventy-nine students (189 males and 190 females) from two government-aided coeducational schools in the New Towns participated in the investigation. In one school, participation included 4 Form 1 classes (with A and B classes including high- achievement students and E and F classes low-achievement students),whose geography was taught by two teachers, each teaching a high- and a low-achievement classes; and 4 Form 2 classes of same arrangement. Classes 1B and 1E and classes 2B and 2E were assigned as Experimental Classes while classes 1A and 1F, 2A and 2F were the Control. By arranging one high- and one low-achievement classes in both the Experimental and the Control groups, it is hoped that the two groups would be made equivalent in achievement. In the second school, participation included two Form 2 classes of different achievement whose geography was taught by one teacher. The low-achievement class was assigned as the Experimental Class and the high-achievement class as the Control. Since the Experimental and Control classes of School 2 are different in achievement, analysis of results will be separately done for the two schools.

Method of Study

The Experimental classes learned Map Work following the procedures of Group Learning Strategy described in the previous section. Students work in groups and were encouraged to help one another in addition to getting help from the teacher. The Control classes followed traditional classroom procedures and they were just asked to get help from the teacher when needed. In each Form, 2 Map Work units were taught, scale and direction in Form 1, contour and and contour features in Form 2. Students learned unit by unit, each of which was followed by exercises, a diagnostic test and supplementary exercises to help students reach mastery level. After learning all the units, students took a final test. The whole process took 6 class periods (lasting a month from May to June, 1990).

Before the investigation, students took the Raven's Progressive Matrices (RPM, short form, 1965) which measures intelligence (reasoning power). The RPM was commonly used in Hong Kong and was found reliable (Siu et al., 1979). Students completed sociometric measure both before and after the investigation. Each student was asked to choose 3 classmates with whom he/she would like to sit together in class and he/she could also name student(s) he/she would prefer not to sit together if that was the case. At the end of the investigation, students completed a questionnaire to express their opinion on effects of learning and learning materials; and the Group Learning Strategy (last item for Experimental classes only). Geography scores of students' first-term and final examinations were obtained from the schools.

The following comparisons of the Experimental and Control classes would be made:

(1) Students' scores of diagnostic and final Map Work tests, their first-term and final examinations geography, and the RPM,

(2) Change in number of rejected and/or not chosen students and the total number of rejects in each class,

(3) Opinion on effects of learning and suitability of materials; and views of the Experimental classes on the Group Learning Strategy.

Procedure

The investigators went through the preparation processes described earlier: specified learning objectives and mastery level of Map Work units, decided on content, divided and sequenced materials into units, devised appropriate strategies for teaching different units, set diagnostic and final tests, prepared corrective and enrichment exercises, devised forms for checker, recorder and praiser use. They administered the students the RPM and sociometric measure. Then they taught the Experimental classes using Group Learning Strategy procedures and the Control classes using traditional classroom procedures. Finally, they administered the Final Map Work Test and the Questionnaire, as well as the sociometric measure a second time.

Results and Discussion

(1) Comparison of Achievement between the Experimental and Control Classes

Tables 1 and 2 make a comparison of achievement of Experimental and Control classes. For Form 1 of School 1 and Form 2 of School 2, there are significant differences only in scores of the Diagnostic Test and Final Examination geography between the 2 class types, but in favour of the Control classes. For Form 2 of School 1, there are significant differences in all scores (Diagnostic Test, Final Test, Mid-term Examination Geography, Final Examination geography and map work section) between the 2 class types, again all in favour of the Control classes.

	Form 1				Form 2			
Items	Cont.	Exp.	t-value	p	Cont.	Exp.	t-value	p
RPM	22.0	20.5	1.28	NS	22.0	21.5	0.35	NS
D.T.A	13.0	10.7	2.92	.01	18.4	13.1	5.23	.001
Final Test	14.9	14.2	1.15	NS	22.0	10.7	10.3	.001
M.T. Geog	48.3	44.3	1.47	NS	76.2	41.3	14.1	.001
Final Geog	55.8	49.1	2.41	.05	71.1	35.4	14.8	.001
Final M.W.	7.4	6.5	1.79	NS	14.3	8.5	7.9	.001

Cont. = Control Classes
Exp. = Experimental Classes
RPM = Raven's Progressive Matrice score,
D.T.A = Diagnostic Test A
M.T. Geog = Mid-Term Exam. Geog. score
Final M.W. = Final Exam. Map Work score

Table 1: A Comparison of Achievement between Experimental and Control Classes, School 1

		Form 2		
Items	Cont.	Exp.	t-value	p
RPM	24.6	23.1	1.28	NS
D.T.A	21.4	18.4	2.30	.05
Final Test	22.5	21.8	0.52	NS
M.T. Geog	59.3	51.7	1.71	NS
Final Geog	60.0	50.6	2.52	.05
Final M.W.	22.3	20.5	1.70	NS

Footnote: Same as Table 1

Table 2: A Comparison of Achievement between Experimental and Control Classes, School 2. (Footnote: Same as Table 1)

A regression analysis of Forms 1 and 2 of School 1 (Table 3), shows that high-achievement classes (A & B classes), had higher Final Test scores than low-achievement classes (E & F classes), higher by .639 S.D. and significant at .001 level; also intellegent students (higher RPM scores) had higher Final Test scores than less intelligent students (higher by .229 S.D. and significant at .001 level); but there was no significant difference in Final Test scores between the Experimental and Control classes.

Results do not indicate that the Group Learning Strategy used in the Experimental classes is superior to the traditional classroom learning method, instead there is indication that the latter method is superior. An explanation for Control classes having better results is that students of high-achievement classes had better Map Work and Geography scores no matter which learning methods were used and the Control classes happen to be high-achievement classes as indicated by their consistently higher test and examination scores. Another explanation for lack of indication of superiority of Group Learning Strategy is that a month's duration was insufficient time for the Experimental classes to have mastered the Strategy and to show results. Also, School 1 has always encouraged cooperation among students, so Control classes, particularly high-achievement classes, might have been keen enough to continue to cooperate despite the fact that the teacher did not particularly encourage them to do so.

Variable	Beta	t	Sig.
Class (Control & Experimental)	.014	.225	.823
IQ (Raven's Progressive Matrice)	.229	3.710	.000**
Ability (high- & low-achievement classes)	.639	10.453	.000**

** sig. at .001 level

Table 3: Regression Analysis of Forms 1 and 2 students of School 1

(2) A Comparison of Change in Social Relationships between the Experimental and Control Classes

Analysis of the sociometric measures (Table 4) indicated that the Experimental classes had 12 friendless students at the beginning, 9 of them made friends gradually, but 6 more became friendless making up 9 friendless at the end. The Control classes had 13 friendless students at the beginning, 9 of these made friends but 12 more became friendless making up 16 friendless at the end. This indicated that the Experimental classes which encouraged group learning is more conductive to students making friends. Also further analysis reviews that among 9 students in the Experimental classes who made friends gradually, 6 of them made friends with members of their own group.

Table 4 also indicates that the Experimental classes made a total of 130 rejects before the investigation, but the number was reduced to 122 at the end; whereas the Control classes made 72 rejects before the investigation, but the number was increased to 216. This is another indication that the Experimental classes which encouraged Group Learning tends to reduce grievances among students.

No.	No Friend				Rejects	
Class	At First	Still	Gradually	At End	At First	At End
Exp.	12	3	6	9	130	122
Control	13	4	12	16	72	216

Table 4: A Comparison of Change in Social Relationships between the Experimental and Control Classes

(3) A Comparison of Effects of Learning, Suitability of Materials and Views on the Group Learning Strategy

From analysis of the Questionnaire administered to students at the end of the investigation (Tables 5 & 6), all students found some increase in understanding, skills, interest and confidence after learning of the Map Work topics (values between 1.47 for "interest" in Form 2 of School 1, to 2.06 for "skills" in Form 2 of School 2 in a 4-point scale from 0 to 3), but there was no significant difference in opinion between the Experimental and Control classes. However, the Experimental classes which used the Group Learning Strategy were positive about this method of learning, they tend to find this method helpful in learning Map Work (value of 1.8 in a 4 point-scale from 0 to 3). The Experimental class students also tend to agree to use the

Views	Students'								Teachers'
	School 1				School 2				
	Cont	Exp	t-value	p	Cont	Exp	t-value	p	
Value 1:									
Understanding	1.85	1.85	0.00	NS	1.84	2.00	-1.02	NS	2.00
Skill	1.61	1.72	-0.87	NS	1.76	2.06	-1.54	NS	2.00
Relationship	1.64	1.55	0.69	NS	1.49	1.81	-1.43	NS	1.33
Interest	1.47	1.33	0.92	NS	1.62	1.69	-0.33	NS	1.67
Confidence	1.35	1.56	-1.66	NS	1.51	1.75	-1.14	NS	1.67
Value 2:									
GLS helpful		1.85				1.83			2.00
Value 3:									
GLS used in:									
Other Geog units		0.81				0.75			1.00
Other subjects		0.81				0.75			1.00
Other classes		0.76				0.57			1.00
Value 4:									
Cross section	1.21	0.99	1.83	NS	[illegible].03	1.88	-0.30	NS	1.00
Vert.interval	1.24	1.17	0.49	NS	1.06	0.86	0.96	NS	0.67
Vert. exag.	1.45	1.29	1.24	NS	1.22	1.50	-1.49	NS	1.67
Read height	1.01	1.03	-0.11	NS	1.16	1.06	0.51	NS	0.00
Slopes	1.67	1.95	-1.93	NS	1.41	1.33	0.37	NS	2.33
Hills	1.67	1.96	-2.17	.05	1.49	1.36	0.65	NS	2.00
Relief features	1.69	1.97	-1.94	NS	1.62	1.54	0.40	NS	2.67
Worksheets	1.37	1.36	0.13	NS	1.02	1.08	-0.42	NS	1.00
Tests	1.83	2.08	-2.22	.05	1.56	1.47	0.40	NS	1.33

Table 5: A Comparison of Views on Map Work Programme and the Group Learning Strategy between the Experimental and Control classes, Form 2 classes of two schools

Value 1:	3 great increase	2 increase	1 slight increase	0 no increase
Value 2:	3 helpful	2 slightly helpful	1 not too helpful	0 not helpful
Value 3:	1 Yes	0 No		
Value 4:	3 difficult	2 slightly difficult	1 appropriate	0 easy

GLS: Group Learning Strategy,
Vert.exag.: Vertical Exaggeration

Footnotes for Tables 5 &.6:

Views	Students'				Teachers'
	Cont.	Exp.	t-value	p	
Value 1:					
Understanding	0.97	1.90	0.70	NS	2.50
Skill	1.96	1.95	0.08	NS	2.00
Relationship	1.93	1.94	-0.02	NS	2.50
Interest	1.53	1.46	0.48	NS	2.00
Confidence	1.84	1.74	0.64	NS	2.00
Value 2:					
GLS helpful		1.81			2.50
Value 3:					
GLS used in:					
Other Geog units		0.73			1.00
Other subjects		0.76			1.00
Other classes		0.69			1.00
Value 4:					
Scale	0.89	1.03	-1.33	NS	1.00
Distance	1.17	1.27	-0.74	NS	1.00
Direction	0.92	0.83	0.72	NS	0.00
Worksheets	1.25	1.49	-2.10	.05	1.00
Tests	1.48	1.45	0.24	NS	1.00
Supp. Exer.	1.25	1.37	-1.02	NS	1.00
Effect of Supp. Exer.	1.93	1.78	0.99	NS	2.00

Table 6: A Comparison of Views on the Map Work Programme and the Group Learning Strategy between Experimental and Control Classes in Form 1 classes of School 1

Group Learning Strategy in learning other geography topics and subjects, and to have schoolmates from other classes use this method of learning (values between 0.57 to 0.81, closer to "1" which means "yes").

Students found the Map Work Topics, Worksheets and Tests ranging from being appropriate to slightly difficult (value 0.83 for "direction" of Form 1 meaning close to appropriate, Table 6; values 1.97 for "relief features' and 2.08 for Tests of Form 2, meaning slightly difficult, Table 5). The Form 1 Experimental classes of School 1 found Worksheets significantly more difficult compared to the Control classes (Table 6). The Form 2 Experimental classes of School 1 found "hills" and Tests significantly more difficult compared to the Control classes (Table 5).

The views of 4 teachers are more positive than that of the students (Tables 5 & 6). They thought students increased knowledge and skills of learning, interest and confidence in Map Work. They thought the Group Learning Strategy varied form slightly helpful to helpful for students to learn these Map Work topics. They would use this method to teach these Map Work topics in other classes, teach other geography topics and other subjects. They thought the Form 1 Map Work topics, Worksheets and Tests were appropriate in difficulty level, and made a careful review of the difficulty level of the Form 2 topics which would be useful in a revision of the materials for future use.

Conclusion and Recommendation

The Group Learning Strategy in teaching Map Work is a combination of the Mastery Learning Strategy and the Cooperative Learning Model. It teaches Map Work in sequential units, uses diagnostic test to discern students who have not mastered the materials, and employs corrective activities/supplementary exercises to ensure mastery. It puts different ability students into groups, encourages them to help one another in class and after school and rewards members for group effort and success.

Students who learned through the Group Learning Strategy said that they found it helpful in learning Map Work and other geography topics. Teachers were even more positive about the Group Learning Strategy than students. Students who learned through the Group Learning Strategy improved social relationships in that friendless students gradually made friends with their group members and the number of rejects also decreased.

However, the effect of the Group Learning Strategy failed to show in student achievement compared to the Control, most probably because time duration was too short and the Experimental classes were lower in achievement compared to the Control classes. It is recommended that in future investigations, time be lengthened from one month to two by spacing out the Map Work lessons and students will be taught group skills earlier in the year so that they have enough time and practice to be able to use the skills effectively in learning the Map Work lessons. Another recommendation is more careful student sampling so that the Experimental and Control classes are comparable in achievement.

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POETRY AND PROSE AS RESOURCE IN THE TEACHING OF ASEAN GEOGRAPHY

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Abstract

In teaching the geography of ASEAN countries, the method of instruction most commonly used is to deal with each country in a systematic manner. The purpose of this paper is to suggest a method of teaching that links geography with poetry and prose. Examples of poems and literary passages are provided to illustrate how these can be integrated with geography lessons to kindle interest in learning, sensitize pupils to environmental and social issues and enhance the teaching of ASEAN geography.

Introduction

ASEAN or the Association of Southeast Asian Nations is a broad based grouping of six countries Indonesia, Malaysia, the Philippines, Singapore, Thailand and Brunei Darussalam - formed in 1967 to accelerate economic, social and cultural development and to promote regional co-operation, peace and stability.

Geographically ASEAN constitutes the peninsula and the archipelago parts of historical southeast Asia. It comprises a heterogeneous region in terms of culture, language, religion, ethnicity, history and traditions.

The geography of the region constitutes an important part of the syllabus for the subject in secondary schools in the countries of ASEAN. Its teaching has tended to follow the traditional approach in which the geography of each country is systematically dealt with starting with its location, relief, climate, vegetation in that order and ending with transportation and trade.

This approach tends to emphasize the acquisition of factual information from prescribed textbooks and is unlikely to arouse

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interest in learning more about the countries beyond that necessary for the passing of examinations. In an attempt to depart from this mode this paper explores the use of a method that links geography with something that is not normally associated with it namely literature. It makes bold to suggest that poetry and prose can be a means of kindling interest in learning the geography of ASEAN lands. Finally, it draws attention to the vast pool of literary resources that can be tapped to enrich the teaching of the region.

Rationale

Part of a teacher's challenge is to make learning meaningful, interesting and relevant to the lives of children. It is only too well known to us that children will not learn unless the learning experience is enjoyable, and the contents of lessons are relevant to their needs and interests.

Literature, with its uniquely creative use of language, in particular, in the use of vivid imagery and the special rhythms of speech, can be fully exploited to achieve precisely this goal. Moreover, literature can create a greater awareness of and sensitivity to the environment - whether physical or social. In this way, it can be seen that both the cognitive and the affective dimensions are being developed.

By way of an example, a geography lesson on fishing in Peninsular Malaysia can be introduced by using the following two poems - Three Beserah Fishermen and Dungun* Fishermen.(* N.B. Dungun and Beserah are two fishing settlements on the east coast of Peninsular Malaysia)

THREE BESERAH FISHERMEN

three small souls in a frail old sampan in the bowl of the sea.
between the teeth of the waves,
between the sea and the home
there was no choice
against the big winds
and the capricious sea.

the wind has no heart -
nor the sky nor the sea,
and the heart was for words of prayer;
time between the stretches of a red imagination

was a promise of hope,
for the heart knows its logic
and the pains of the whipping winds.

what of the wives, sons and daughters,
the tomorrow, the eye of the day,
the rice and the fish, the school fees?
on land how heavy the soul is loaded;
to survive was as hard as to die.
to go down into the bottom of sea-dish,
the bare dish:
to jump and swim into time and hope?

the early morning nets, the boats,
the friends, the gregariousness,
and the sea-saw
on the fulcrum of the shore.
harsh land pushed them
into the uncertain sea
deep into eclipsing death

in Time and its People
- Muhammad Haji Salleh

DUNGUN FISHERMEN

in sight of the purple ocean
and the delicate guardian storks
of their fragile perahus

a circle of sun-brown fishermen
mend nets on the sand,
disentangling sea-weeds

from their beach-made nets.
the heavy sun absorbs
language, the afternoon is quiet.

patiently they pull threads
across fish-holes and knot them in revenge
feeling the rhythm of their internal sea.

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against the thick skies
the fertilised trengganu oceans,
they are dessicated toys.

the waves are their adversary,
office-mate and paymaster,
life-giver and graveyard of unreturned neighbours.

in Time and its People
- Muhammed Haji Salleh

In these two poems, the poet evokes sympathy for the lives of those who eke out an existence from the sea. For instance, the dilemma of the fishermen, their anxiety and fears clearly emerge in the following lines :

> 'What of the wives, sons and daughters, the tomorrow, the eye of the day, the rice and the fish, the school fees? on land how heavy the soul is loaded; to survive was as hard as to die.'

The last line underlines the considerable grit needed to survive as a fisherman. In Dungun Fishermen the poem again focuses on the lives of fishermen and their frailty when they are pitted against the forces of nature in their struggle for existence.

....against the thick skies
the fertilised trengganu oceans
they are dessicated toys.

the waves are their adversary
office-mate and paymaster
life-giver and graveyard of
unreturned neighbours.

Empathy for the padi(rice) farmer is depicted in a poem by Masuri a Singaporean Malay poet :

This rice I eat
Was once hopeful padi,
Its stalks solemnly laden, bowing their heads,
Continually swayed by the blowing breeze.

This grain of rice I chew -
I am swallowing it down my wet throat;
So from flowing blood
In my body an action terminates.

Gusty wind and equatorial sun
scorch the body of the peasant in the field;
Heat, rain I eat is a mixture of them all.

This good deed I receive
Is a common gift, like many branches growing
together:
This rice is the product of labour

Returned to those who deserve it.
So what I eat is not originally from rice
But from sweat, blood constantly flowing;
So what I swallow is not originally from padi,
But from the sinews, the pulse of all peasants.
(Masuri S. N. This Rice I Eat)

The poet speaks of the 'gusty wind and equatorial sun which scorches the body of the peasant as he toils in the field.' The imagery used helps to convey a picture of rice farming and the conditions in which work is done and arouses feelings for the farmer. The final verse is especially poignant.

While the preceding poems tell of the hardship of fishermen and padi farmers, Wong Yoon Wah's 'The Tin Mine' and 'The Deserted Mine' touch on a different aspect of ASEAN geography, - tin mining.

THE TIN MINE

With the sand and gravel
we travel
in the gurgling brook
from the peak
to the plain.
On the way
exhausted
we slump
panting
on the river bed.

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The clear currents
wash our bodies
showing off
their whiteness.
But later
we are tanned once more
by the equatorial sun.

Village women
stalking our brook
busily winkle us out.
For cash
they will sell us
to the scorching flame.

Fearing the furnace
we hide
between manganese,
sand
and gravel.

But relentlessly the women sift
each pile of mud
till they find us
crouching cowardly
beneath the dulang*
a handful of white rice ..... Unhusked
we shiver
in the winnowing tray.

Wong Yoon Wah

* Dulang : Lit (Malay) a circular woven tray, usually made from split bamboo, traditionally used in Peninsular Malaysia to sift river sand for tin.

THE DESERTED MINE

When I walk out of the mud
the earth leaves behind
a few lakes
rippling
with black waves
which stare sadly at the sky.

Reluctantly
wild orchids
and ferns
grow
on mound
after mound
of barren
sand banks.

Wong Yoon Wah

In the first of these two poems, the poet describes the deposition of tin on river beds in the opening lines:

With the sand and gravel
we travel
in the gurgling brook
from the peak
to the plain

on the way
exhausted
we slump
panting
on the river bed

The ore hidden in a mixture of sand and gravel is then mined by :

Village women
stalking our brook
busily winkle us out
For cash
they will sell us
to the scorching flame.

When the ore has been removed the environment is altered. The effects of mining on the land are summed up in the closing lines of The Deserted Mine.

Reluctantly
wild orchids
and farms
grow

on mound
after mound
of barren
sand banks.

By incorporating such poems, lessons on economic geography are made more human and appealing. Learning geographical facts is more than an academic experience -it has become a human experience.

In teaching the geography of regions, passages from literary works/novels are of value particularly because of the way in which they portray the influence of geographical features of an area on the lives of its inhabitants. Combined with other forms of description either textual, statistical or visual, such passages take on a greater meaning than the prose itself can convey. As Margaret Anderson has stated in her introduction to 'Splendour of the Earth' ".... no deadly accurate, purely technical description can bring vividly to life a mountain, a great river, or even a climate, can make it our own to love and remember, as an imaginative description by a great writer can do."

The following passage for example, provides a vivid description of a Malaysian rainforest.

> "... But come down from the mountain peak and walk alone along a forest path. Though it is mid-day it is very dark and very sombre. The sun cannot pierce the dense foliage of the branches of the giant trees, and so heavily do shadows lie upon shadows, that the very green seems almost black. The sheltered air is fresh and cool and there is an almost perfect stillness. Underfoot, except where the path is trodden bare, is a matting of dead leaves and of sweet damp moss. The daily passage of the Malays keeps back the encroachment of brambles and forest creepers. To the right and left of the path the forest appears to be almost impenetrable. The trees grow so thickly together that you are closed in by a small but unbroken circle of tree trunks. Between the trees, there are tangled masses of bushes, briars and saplings. Rattans and creepers of every kind crawl along the ground and among the trees, sometimes hanging in heavy festoons and sometimes tense with the pressure that they exert. So thick and strong is the mass of creepers that when a wood-cutter hacked through a treetrunk, it is often kept upright by the ligaments that bind it to the surrounding trees."
>
> (Moore, 1956, 14-15)

- Donald Moore (edited). Where Monsoons Meet, George, C. Harrap, 1956. pp. 14-15.

The above passage highlights some of the salient features of the Malaysian rainforest. It helps to focus attention on the luxuriance of the forest, the profusion of species and the stillness of the air within it. The climbers and lianas that form a significant characteristic of the rainforest are clearly described in the last few lines. A discussion on the climate, composition and characteristics of the rainforest can then follow. From this, students should be able to get an impression of a rainforest even though they might have no opportunity to visit an actual one. A recording of sounds such as the incessant hum of insects can be used to create the effect of being in a forest and help to enhance interest.

Such personal accounts help to conjure up vivid images and give a sense of reality to landscapes that technical descriptions, statistics and maps can never effectively achieve as it is real phenomena and real places that are described.

Literary descriptions such as the above may be used in teaching simply to illustrate details of a landscape or to stimulate inquiry. In the case of the latter, questions could be set relating to the features mentioned as a basis for a lesson based on inquiry.

Mention has been made of the role of geography in developing the affective. To promote empathy and understanding and to raise social consciousness, the geography teacher can turn to the literary works of Shahnon Ahmad, who is recognized as Malaysia's leading contemporary novelist. In No Harvest but a Thorn Shahnon Ahmad highlights the plight of an isolated family in the remote mountain village of Banggul Derdap resolutely struggling to farm their rice against overwhelming natural odds.

The theme of social change lies behind the novel Role of Ash by the same author. Like the former, the novel is set in the fictional village of Banggul Derdap with its fields, houses and mosque features of a typical Malaysian rural landscape. In the background of the novel are the rhythms of the annual planting and replanting, growth and harvest of the rice crop.

Social concern, social change, rural poverty and indebtedness, these are the recurring themes in many of the novels of ASEAN authors and poets. These too lie at the heart of Gonzalez's work. In Hunger in Barok, Gonzalez describes the struggle of the Kaingineros (shifting cultivatiors) against natural adversity - reminiscent of Shahnon Ahmad's work. This sad refrain is heard again in 'A Season of Grace' which tells the story of a couple called Doro and Sabel who leave the overpopulated Tara

Poro in order to carve out a 'kaingin' of their own in the jungle border lands of the Philippines. Kaingin are areas cleared for the planting of rice and corn and secondary crops like sweet potato and yam. More specifically, the novel deals with pioneer settlers of the rural hinterland, harvesting, fighting the rats for the rice, mosquitoes, being exploited by the landlord, showing hospitality towards strangers and looking after offspring. The fears and hopes of the settlers as they begin each search for a kaingin are echoed in Sabel's thoughts.

> '.... Before the sun had risen a palm's length above the swamps they would reach Bakawan; Sabel knew. They would get to the landing - place in no time at all. A little strip of swampland, and the trail would take them to the interior. She wondered whether mosquitoes would plague them all the way. She wondered whether sickness lay ahead and she stroked Porton fondly to keep her fear to herself.'
>
> (Gonzalez, 1975)

The theme of poverty, land tenancy and indebtedness is echoed in Ho Min-Fong's Rice without Rain - a novel set in Thailand of the seventies. The plot centres around Jinda, a courageous young Thai girl whose village in the arid Maekung Valley of North-eastern Thailand like others suffers from exorbitant land rent which leaves farmers poverty stricken, indebted and landless.

In contrast to these themes, Mochtar Lubis's Twilight in Djakarta reveals the dark currents of poverty corruption and vice which run beneath the surface of one of the largest cities of the Third World. It provides a penetrating analysis of man's constant struggle against social inequality and injustice, the plight of the urban poor and the squalor in which they live. This is vividly described the following lines.

> 'Along the wall near the railway, in the ruins of a former half-torn-down train-stop shelter, the city vagrants had their shantiness. Old choral baskets had been pile up to save as walls; worn-out, shredded pandanus mata were laid on the earth for floors. The roofs of these shanties were made of blackened and rusty pieces of old cans, patched together with bits of old cardboard.'
>
> (Lubis, 1983, p. 126)

Throughout these novels, the recurring theme is social poverty, hunger and quiet stoicism in the face of adversity. Used with care, these novels could be powerful tools to develop empathy and concern and sensitize pupils to social and environmental issues. However caution must be exercised in the choice and use of these passages lest they lead to negative views and feelings of pessimism.

Conclusion

The poems and passages cited in the preceding paragraphs are but a few examples of poems and literary passages that teachers can effectively use to stimulate interest and to create effect in geography lessons. Their value as resource lies not only in the vivid description of places and people but in the way in which they show how people are influenced by and respond to the physical elements in their various settings. Through the years, the teacher should build up an anthology of poems and extracts which can be used to enhance his teaching and enrich the learning experience of children. The wealth of literary works as resources in teaching the geography of ASEAN is as yet untapped.

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Teaching

ABOUT

Asian Pacific Countries

WHAT DO AUSTRALIAN SENIOR GEOGRAPHY STUDENTS LEARN ABOUT ASIAN-PACIFIC COUNTRIES?

Don Biddle
Australia

One of the problems of writing about the content of senior school Geography courses in Australia is that education to the tertiary level is one of the functions that the separate states were not prepared to transfer to the Commonwealth Government in 1901. Consequently, at the present time, the Governments of the seven Australian states and the Australian Capital Territory have the major responsibility for primary, secondary and technical and further education (Cameron, 1985, pp.226-232).

No doubt the concentration of people around one or two large towns or cities in each state, early this century, isolated by the tyranny of distance (Blainey, 1966), and large areas of sparsely populated land, had a considerable Influence on the retention of eight education systems in Australia. Each education system is responsible for one or more senior school geography syllabuses.

The purpose of this paper is to describe and analyse the various senior geography syllabuses in Australia to ascertain to what extent these students enjoy the opportunity of learning about Asian-Pacific countries. The syllabuses to be examined are from Queensland, New South Wales, Northern Territory, South Australia: Tasmania, Victoria, Western Australia, and the Australian Capital Territory (see Note 1).

During the 1980s there were many discussions among geographers and geographical educationalists concerning the types of study programs and learning activities which would be of interest and relevance to senior students (see Note 2), and still retain the integrity of geography as a research discipline. It was found that the nature of the content selected in each state geography curriculum varied considerably, whereas the concepts: skills and attitudes to maintaining or improving environmental quality, and learning

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activities, were remarkably similar (Gillies and Wilson 1987, pp.1-21). This variation in content is significant when considering how much senior geography students learn about Asian-pacific countries.

The Queensland Senior Geography Syllabus is intended to educate young students about, in, and for the society and environment in which they live (BSSS 1987, p.l). Through a selection of semester units students are assisted to understand the patterns and processes of phenomena on the earth's surface; to develop skills of geographical enquiry; to appreciate the character and beauty of landscape; to develop empathy for other cultures and life styles; and to become involved members of their community (BSSS 1987, p.5).

The Syllabus consists of eight Independent semester units, organised in three groupings:

1. Physical Geography Units
   - 1.1 Geomorphology
   - 1.2 The Living Environment
   - 1.3 Studies in physical Geography

2. Human Geography Units
   - 2.1 Geographical Studies of Development
   - 2.2 Economic Geography
   - 2.3 Settlement Patterns and Processes

3. Integrating Units
   - 3.1 Australian Geographical Inquiries
   - 3.2 People and the Environment.

In designing a course of study students must select four semester units with at least one from each grouping (BSSS 1987, pp. 9-10).

Although teachers have the freedom to choose regional examples and case studies suggested case studies are included in each semester unit. The units in which Asian and pacific countries are mentioned are in Geographical Studies of Development where Java, India, Japan, Indonesia, and Fiji are suggested case studies for specific topics each programmed for two weeks; in Economic Geography where Singapore is suggested as an economic regional study; and in People and the Environment where Asian and Pacific regional examples would be appropriate but the choice remains with the teacher or student (BSSS 1987, pp.23-99).

The New South Wales Geography Syllabus Years 11-12 is based on a people environment conceptual framework characterised by analysing questions, issues and problems arising from people's interaction with their environments. The syllabus is expected to develop students' understanding of spatial variations among ecosystems, resources and the life chances of people. This knowledge, learned while developing research skills, social skills and value positions, is intended to assist students to function as informed and active members of society (BSE 1987, pp.l-3).

The structure of the NSW Syllabus has Year 11 students studying Australia in its World Context and Year 12 students having a choice between Global Environments and Australia's Neighbours. Teachers may select Asian and pacific regional or case studies in Year 11 as comparative studies with Australian examples of Environmental Management and of Population and Employment in a community or large city, then continue these studies in Year 12 with topics in either Global Environments or Australia's Neighbours (BSE 1987, pp.6-8; 56-57).

The Global Environments lobe adopts a thematic approach focused at the world scale. The core topics which all students must study are the Use and Misuse of Natural Resources and Settlement and Livelihood. They then have a choice between Food and Agriculture and Manufacturing and Technological Change. Students who wish to study geography as a major course must complete two further topics from World Economic Development, The Fragile planet, and World Power in a Nuclear Age. In all these topics teachers may select Asian and pacific regional or case study examples and many do so (BSE 1987, pp.18-33).

However students who select the Australia's Neighbours lobe are required to do a much more detailed study of Asia and the Southwest pacific. This lobe adopts a thematic approach derived from the nature of the area studied. The core topics are an Overview of Australia's Neighbours with each of the countries grouped under Southeast Asia, East Asia, South Asia and the Southwest pacific; Cultural Diversity and the Processes of Culture Contact Affecting Australia's Neighbours; Natural Resource Management in a selected Asian or Southwest pacific country and the impact of development of a natural resource on a local community in that country; and Australia's Relations with its Neighbours; with an emphasis on Major social, economic and political links with these neighbours and with one country in particular. Students then have a choice between Food and Rural Areas and Urbanisation in Asia and the Southwest pacific again studied in general and with specific examples. Major topics of which two have to be selected are Economic Development; Fragile environments; and Political Tensions with all topics emphasising the situations in Asia and the Southwest pacific and their impact on relationships with Australia (BSE 1987, pp.35-53).

In the Northern Territory the Year 11 courses are school designed and assessed. The course is divided into semester units with two units to be completed by students. If the units are accredited by a panel set up by the Northern Territory Education Department they are included on the Senior School Leaving Certificate. Semester units which have proved popular with students are Foundations of Geography concerned with skills and geography of development; Leisure and Recreation; Geography of Northern Australia and Southeast Asia. The latter unit provides an over-view of the countries of Southeast Asia and includes comparative case studies with Australia. At the present time, however, the Year 12 courses implemented are those developed in South Australia (Gillies and Wilson, 1987, p.l).

In South Australia there is one Year 11 Syllabus: One World: A Study of Development. It consists of twenty units based on four main areas of emphasis: environmental systems, resources, aspects of development, and global and local issues.

This syllabus continues the process commenced in the junior secondary school of developing students' understanding of the fundamnential concepts which provide the structure of geography as a discipline. The concepts emphasised in Year 11 are spatial - location, distribution, association, interaction - region, physical interaction, people-environment relationships; dynamics and change - areal change, movement and energy, which are used to develop an understanding of various physical and cultural pattern at regional, national and global scales (EDSA, 1987, pp.1-2).

The selection of content is the prerogative of the teacher after considering the experiences, knowledge, interests and values of the students and the constraints of time and resources available.

The syllabus, when studied as a full year course, requires a minimum of eight units with the units title One World or Many and Development World Distorted as introductory units, and Development Revisited as a concluding topic (EDSA, 1987, pp.4-6). There is scope under each of the four main areas of emphasis for students to study Asian and pacific case studies but it depends on the resources available and the teachers; interests on how many of these case studies are included in the course (EDSA, 1987, pp.7-27).

There are two geography syllabuses available for Year 12 students: the first uses a student-centred methodology and continues with school-based assessment, while the second is based on contemporary geographical studies and is externally assessed. Both these syllabuses continue the conceptual structure approach: introduced in the junior secondary school: on the assumption that a student's ability to conceptualise increases with experience and maturity.

The school-assessed syllabus focuses on a knowledge of work and leisure patterns in the local area and on the wider Australian community. The core or compulsory topics are Patterns of Work and Leisure and the Local Area. These are ten option topics of which four have to be completed as a minimum requirement for the Year 12 course. These topics range from Movement to Work, Work and the Environment, Migration to Shops and Shopping patterns, and Leisure and Tourism. There are no references to Asian and Pacific countries in this syllabus or in the resources recommended (SSABSA 1988, pp.2-13).

The externally assessed syllabus is essentially the study of places and their significance for people. The content is intended to be relevant for all students as it concentrates on current issues such as resource usage: conservation, employment' and development in Australia. Students are required to do two core topics: The Physical Environment - Habitat and Resource and Regional and Urban Development - The Changing Location of Economic Activity, Employment, and Population and to study two extension topics from Coastal Environments, Environmental Hazards, Granite and Limestone Landscapes, Change and Development in Rural South Australia Living in the City, and Migration and Population Change. Although teachers have a limited choice of case studies the only references to Asia in the syllabus are government responses to spatially uneven development in Japan and internal migration of people in Malaysia (SSABSA 1988, pp.28-38).

There are three geography courses for the Higher School Certificate available to students in Tasmania; the titles to these courses are Level 3 Geography, Level 2 Geography, and Geographical Studies with Level 3 the most complex and comprehensive.

The aim of the Level 3 course is to assist students to understand the earth's surface as interpreted by geographers through the study of environmental and man-made patterns and man-environment interactions. Contrasts between less developed and more developed areas are emphasised wherever appropriate (SBT 1988, pp.4). The syllabus is divided into four themes: Limitations and Possibilities of Natural Environments; Use and Misuse of Natural Resources; Population Patterns and Change: and Livelihood and Settlement. Each of these themes has a core study plus four or more optional units (SBT 1988, pp.4-6). For example, for Theme 3: Population Patterns and Change the core study is Population Geography featuring comparisons between more developed and less developed countries while the optional units are Feeding the World's Population; Migration; Multicultural Societies; and World Health (SBT 1988, pp.17-18). Student are required to study the four core studies plus one of the optional units out of the eighteen units available. Case studies selected are the prerogative of the teacher or the student in consultation with the teacher. Consequently, Asian and pacific examples are frequently selected in one or more of core studies and in the optional unit (SBT, 1988, p.4).

The Geography 2 syllabus is an easier course which aims to develop geographical understanding of patterns and processes in the total environment, and help students to make informed decisions about geographical issues by developing an understanding of concepts and the variety of skills necessary to achieve these aims. The syllabus is divided into Part A. The Local Area: Centre and Hinterland and Part B' Beyond the Local Area: Three Worlds. Again the case studies in part B are selected by the teacher and Asian and pacific examples are used frequently (SBT 1988, pp.54-57).

The Third syllabus has the title Geographical Studies. There are thirteen units ranging from The Environment, Forestry and Forest Products in Tasmania, The Changing City, Geography Behind the News, and Italian Regional Cooking. Students are required to complete any three units listed, or include a unit, submitted by their school, if it is approved by the Schools Board (SBT 1986, p.l). An examination of the references indicate there are limited opportunities for the study of Asian and pacific examples except in the units on The Changing City and Geography Behind the News (SBT, 1986, pp.5-22).

The Year 11 course in Victoria is school designed and school assessed although new courses are being developed in geography for Years 11 and 12 for a new Victorian Certificate of Education. It is expected that these courses will be ready for introduction in 1991 (Gillies and Wilson 1987, pp.18-19; Berry 1988).

The Year 12 course is intended to develop students' understanding of and ability to apply specified organising concepts and methods used in geographical inquiry in association with the study of two core units selected from the following: The Earth in Action Natural Systems; The Consequences of Human Population Change: Geographic Perspectives on Development; Impact of Resource Use on the Environment: and Territories and Boundaries. In addition one optional unit may be selected from A Geography of

Recreation; Settlement Patterns; or a topic developed by a school or group of schools and accredited by the Institute (Gillies and Wilson 1987, pp.18-19; Berry 1988).

Once again the case studies selected are the prerogative of the teacher and four of the core units and one of the optional units provide opportunities for the selection of Asian and pacific examples.

Two new syllabuses are being introduced in **Western Australia**; one for Year 11 and one for Year 12 with each a complete course. However, each of the courses aim to integrate the concepts or place, processes and issues in physical and human contexts and to encourage a values approach to the study of processes and issues in conjunction with the development of skills (Kalajzich 1988).

The Year 11 syllabus has a global emphasis and in each of the physical units the relevant human issues have to be considered. Students are required to select four units from the following: Geomorphic Studies; Atmospheric Studies; World Biomes; Patterns of Development Resource Utilisation: and the Indian Ocean - An Integrated study. It is obvious from reading the general and specific objectives for each of these units that some reference could be made to Asian and pacific examples in all of the units but the list three units provide much greater scope for selection of these examples. The integrated study of the Indian Ocean places particular emphasis on Southern Asia and Africa (SEAWA 1988, pp.2-8).

The Year 12 syllabus is designed to develop students' understanding of the physical and human components of the environment, the significance of spatial patterns, and to assess people's influence on that environment. The syllabus specifically relates to the study of Australia and has three compulsory sections: Landscapes and Land Use in Australia; Settlement Patterns; and Urban Australia. The Major reference to Asia and Pacific examples is in the population characteristics of urban areas and the impact of Asian immigration and multinational companies on the internal morphology of cities (SEAWA 1988, pp.2-11).

Schools in the **Australian Capital Territory** have School Boards which give the community a greater involvement in decision making in schools than any other state education system. Consequently: each syllabus applies to a particular school and it is difficult to be specific about the aims and specific objectives of geography syllabuses and the case studies selected by teachers and students (Mildern and Mulford 1980, pp.57-60; ACTSAA 1977; Cho 1988).

This analysis of the various syllabuses for senior geography courses in Australia demonstrates the difficulties of generalising about what students learn about Asian and pacific countries. The move towards school-based curriculum development in each state will increase these difficulties because teachers' freedom to select case studies is increased and topics included in the school course will depend on the geographical knowledge and interests of the teacher and the classroom resources available.

There are, however, some conclusions possible from this analysis of syllabuses. These are that:

1. there are many opportunities for teachers to Include case studies from the Asian-Pacific countries in their courses. These opportunities will be enhanced when more case study materials become available through embassy publications; through the preparation of resources by the geography teachers' associations; and through new textbooks being printed for the Australia's Neighbours Lobe in the NSW Syllabus;

2. at the present time the following courses provide opportunities for teachers to introduce case studies of Asian-Pacific countries:

    2.1 Queensland semester units on Geographical Studies of Development: Economic Geography; and People and the Environment;

    2.2 NSW Topics in the Global Environments Lobe;

    2.3 Northern Territory semester unit in Year 11 on the Geography of Northern Australia and Southeast, Asia;

    2.4 South Australian Year 11 Syllabus titled One World: A Study of Development;

    2.5 Tasmanian topics in each of the three Geography Syllabuses;

    2.6 Victorian core units titled The Consequences of Human Population Change: Geographic Perspectives on Development; Impact of Resource Use on the Environment: and Territories and Boundaries;

    2.7 Western Australian Year 11 units on Patterns of Development; Resource Utilisation; and the Indian Ocean - An Integrated Study.

The nature of the Asian and Pacific content studied in any of these state courses is dependent on the topic being studied and, usually, is specific to that topic rather than a holistic geographical study of a country or region.

3. The NSW Year 12 Australia's Neighbours Lobe is the only senior geography course in Australia which requires a detailed study of Asian and Southwest pacific countries. This course provides an overview of the Asian and South Pacific region; an exploration of the cultural diversity and processes of cultural contact; an understanding of natural resource management; and a knowledge of Australia's interaction with the countries in the region. In addition, students doing the normal course may elect to study food and rural areas or urbanisation while students doing the advanced course must elect two units: in addition to the above, from units on economic development: fragile environments and political tensions in the region.

References and acknowledgements

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Dr B. Cox, Queensland; Mr L. Holthouse, South Australia;
Mrs P. Wessing, Tasmania; Mr R. Gerry, Victoria;
Mr J. Kalajzich, Western Australia; and Dr G. Cho, Australian Capital Territory.

Note 2:Senior geography students in Australia are those studying Year 11 and 12 courses. Generally they are in the age bracket of 16-18 years old but many students are older who do the course in the evenings because they are employed during the day.

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THE PRESENTATION OF CHINA IN THE GEOGRAPHICAL EDUCATION OF THE FR GERMANY

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Abstract

The way China is presented reflects the changes within the geographical education of West Germany since 1970. There was a change from regional to systematic geography and then to a kind of compromise. There was also a change from more general statements to those which reflect contemporary political developments. Geography education (including that about China) should not only present geographical and socio-economic structures; it is important that it shows peoples' daily life and explains the value systems of their behaviour.

Introduction

What is important in school geography? Topographical facts? The interdependence of geographical, social and economic factors of a country? Ecological structures to prevent environmental damage? Everywhere geographers try to select what is important, from the constantly growing amount of information that reaches them from all parts of the world (see for example Graves, 1982; Haubrich, 1982). There has been a fundamental discussion in West Germany, whether regional or systematic Geography is the better way to develop geographic knowledge and the ability to take part in the world's development. Over 20 years, different ways have been suggested. The presentation of China reflects the different curricular and methodolical approaches of geographical education.

To find out what was taught in the different decades one can analyse school books. In Germany, as elsewhere, the school textbooks are a more important indicator of the reality in geographical education than curricula.

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The Sixties: Regional Geography

The aim of geographical education was to show pupils the different regions of the world, state by state, and, within the states, area by area. There were two main ways to do that. In elementary schools, the books contain a mixture between stories about peoples' lives and descriptions of natural and cultural landscapes. In secondary schools, schoolbooks also portray a mixture. However, besides the description of natural and cultural landscapes, there is also a systematic summary of agriculture and industry. In most cases pupils learn only a few transferable structures but a lot of topographical detail.

The Presentation of China in a School Textbook for Elementary Schools, 1967 (see below) had two parts: One showed daily life in Beijing, the other illustrated the different natural regions of North China, South China and West China unpinned by diagrams and painted pictures. The presentation of daily life in Beijing tried to show contemporary events but to avoid political implications and inferences. Thus pupils did not learn that there was a People's Republic with a communist regime. Much stereotyping is also presented.

This can be illustrated by sentences from a school textbook for elementary schools, 1967:

> "When I strolled through the streets of Beijing, I supposed a mass meeting had just finished. Crowds of people pressed against each other on the pavements. There were banners flying and neon lights with chinese characters."

Pupils learn that China is no longer ruled by emperors or foreigners, but China belongs to the Chinese. They learn that China will change and they will be the people changing China. They learn, that there is a continent somewhere named Europe; a strange continent, inhabited by peoples with long noses. (Das ist unsere Erde, 1967, 225-227).

The Seventies: Systematic Geography

In about 1970, there was a radical change in geographical education in West Germany. Regional geography was no longer taught but was replaced by systematic, transferable structures. Geographers tried to find examples from all over the world to illustrate the various aspects such as agricultural geography, transport geography or urban geography. In such a curriculum, there was no place for teaching about China as a whole. In most cases only the rural geography of China was taught through the topic of the People's Commune which was presented as a successful example for rural development.

The Presentation of China in a School Textbook for Secondary Schools, 1980 The Chinese Way of collective farming:

> "The People's Commune (PC) is responsible for the planning and realization of great cooperative tasks like making streets supplying water and electricity. The P.C. is responsible for secondary schools and hospitals. Each P.C. has agricultural and industrial estates. Each P.C. is divided in Production Brigades, each brigade in Production Teams."

In this school textbook the presentation of China was nearly reduced to a story of the Dazhai Production Brigade. And this was a story of success. Most of the information contained in the texts came from a Chinese propaganda booklet. Only the latest events were cited: "After the death of Mao the political situation in China has totally changed. The Production Brigade of Dazhai no longer is considered as a model for rural development. Dazhai was critizised for being too radical. (Geographie, 1980, 15-17)

The Eigties: The Search For A Compromise

At the end of the sixties, scientists and geography teachers became dissatisfied with the regional geography.

> " Always the same, country by country, region by region."

The new way of systematic geography in geographical education during the seventies, however, did not solve the problems.

> "Pupils jump from country to country.Today a People's Commune in China, tomorrow a Kibbutz in Israel, next week a farm in the U.S.A. The pupils haven't got complete knowledge about any country, be it China, Israel or the U.S.A. We need more than aspects of a country."

But there is no solution to the problem in sight.

> "Most teachers don't want the old regional geography. Because it has no theoretical background. Most teachers also don't want the new systematic geography. Because there is no knowledge of a country as a whole."

There are different attempts to create new ways:

1. Regional geography of a country, the classification is

systematic geography. China: Agricultural geography, industrial geography, geography of population...

2. Regional geography of a country, the classification results from the problems of the country. China: The problem of overpopulation, how to feed millions, where to find capital for industrialization...
3. Regional geography of a country as a part of a cultural continent. China as a part of the East Asian-Cultural-Continent: Confucianism and modern ideas of social development, Chinese character as a symbol of identity, the secular way of thinking and industrial progress.
4. Systematic Geography in regional arrangement. Developments in agriculture, urbanization in a developing country , social traditions and the increase of population pointed out in examples from China and other countries in East Asia.

The presentation of China in an elementary school textbook, 1988

1. Orientation in China: Topographical survey, historical survey.
2. Natural regions and how they are used. The agricultural classification of China.
3. One billion people - the problem of family planning.
4. Successful agriculture. The problem of mechanization.
5. Daily life in a village.
6. Minerals and industry. Ways of industrialization.
7. Urban structures in China.
8. Daily life in a city.

(Mensch und Raum, 1988, 82-97)

The presentation of China in a secondary school textbook, 1990

1. The natural potential for agricultural use.
2. Technical measures to develop food production.
3. Political measures to develop economy: from rural collective economy to a production responsibility system.
4. Development of industry. National and local factories.
5. Selected branches: production of bicycles and computers.
6. Closed economy or cooperation with the capitalisti world: different ways to develop a country.
7. The problem of overpopulation: old and new values and their influence on family planning.

(Seydlitz Geographie, 1990, 24-37)

The Need For New Ideas - A Conclusion

As a conclusion we find that geographical education needs both:

1. A regional geography of a country as a whole. China is e.g. an individual country.
2. A Systematic geography of certain aspects such as agriculture, population development, the examples taken from different countries. It's neccessary to compare developments in different parts of the world.

But we need new ideas in geographical education. We need new topics. The presentation of China should show-the role of women in society. There have been a lot of changes since the feudal system ended. But there are still a lot of traditional practises in daily life!

-the change from an agricultural to an industrial society. There are a lot of problems because industrialization needs value systems. The events of June 1989 show the importance of solutions.

-Nationalities and nation. The task to develop regions as well as the whole nation. The actual problems in Tibet and Xinjiang show the difficulties to find a balance between region and nation.

-Daily life must be an important part of geographical education, but not only in colourful pictures and stories. There must be reports about the developments, which influence daily life and which will change the life of the people.

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The Place of Asian and Pacific Geography at the University of California at Berkeley.

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Introduction

Geography at the University of California at Berkeley has never been able to claim any program in Asia or Pacific studies, yet the department does claim a number of graduates who have gained considerable distinction through work in these regions. The number of graduates studying Asia and Pacific topics in the Department of Geography at Berkeley has been rising, though offerings of regional courses on Asia and the Pacific have been slim. The course "Southeast Asia" has been a regular listing since 1935, but courses on East Asia, South Asia, and the Pacific have been offered only irregularly.

Despite the small numbers of faculty and class time devoted to Asia and the Pacific, from 1908 to 1989 fifteen percent or thirty-one of all M.A. theses, and fifteen percent or twenty-five of all Ph.D. dissertations were written about topics based in these regions. For the decade of the 1980s, the percentages rose: twenty percent of all master's degrees, and twenty-four percent of all doctorates were on Asia and Pacific topics. Seven graduate students working on Asia or the Pacific have dissertations in progress.

An Academic Environment for Asia and Pacific Studies

Several conditions promote the success of graduate students working on Asia and the Pacific at Berkeley. In the department itself, freedom of topical and regional selection encourages graduate students to follow their own interests beyond faculty specialities. Few graduate students at Berkeley work closely with their supervisors in faculty-generated research projects. In the larger campus community,

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Asian specialities are well-represented, particularly in departments of history, sociology, anthropology, and political science, and geography graduate students commonly take regional courses in these departments. Certainly the Oakland-San Francisco Bay Area's focus on cultural, political, and economic relationships with Asian countries, particularly China and Japan, supports the need for increased study of Asian issues. And like global shifts in economic power, graduate students with Asian and Pacific interests are aware of the need for regional experts and so trust their research in these regions will lead to greater professional opportunities.

Pacific area studies have been less well-supported than Asian regional studies until recently. In 1988, the Department of Geography brought a new chairman to Berkeley, in the form of David R. Stoddart, formerly at Cambridge University. Professor Stoddart, of course, has worked all across the tropical world and devoted extensive research to issues in coastal geomorphology and the ecology of tropical islands and reefs. Students of the Pacific also now can find support in Patrick Kirch, who has been appointed in the Department of Anthropology.

Teaching Asian and Pacific Geography

Teaching of Asian and Pacific geography at Berkeley generally has followed two currents of approach: area-specific regional courses, and inclusion of Asian and Pacific material and case studies in topical courses. First, I consider the Asian and Pacific regional courses that have been taught in geography at Berkeley and the faculty and graduate students who developed them.

Courses on Asia began to be offered in the late 1930s when a visiting lecturer from San Francisco State University Department of Geography, Walter Hacker, offered a year long course called "The Orient." Jan O.M. Broek took charge of this course for the 1939-40 academic year, and continued to teach at least one semester of Asian regional geography through the years of the Second World War. The year long, two-semester format of the course dissolved with the departure of Broek, since few faculty were willing to take on both East and Southeast Asia. "The Orient" course evolved into two regional courses: "China, Japan, and Korea," and "India and Malaysia," which, at the time, referred to India and all of Southeast Asia. The department retained these two courses through the 1950s and 1960s. Both of these courses tended to follow a systematic approach which began with physical geography of the region, followed by patterns of agricultural practice. After this groundwork, the instructors usually lectured on descriptive geographical patterns of each country individually, for three to five class periods. Later, in the early 1960s, David Sopher, one of the department's own graduate students, taught a course devoted to South Asia.

After Broek, the only other Asian regional specialist to teach both East and Southeast Asian courses was Paul Wheatley. Wheatley extended his Asian course offerings to include West Asia, in a "Middle East" regional course, during his tenure at Berkeley, from 1958 to 1970. Clarence Glacken, renowned for his work on relationships between nature and culture, occasionally joined him in teaching the East Asia course. It was Glacken who brought to the study of this region acute sensibilities of Asian environmental perception with, for example, an understanding of fengshui. Wheatley, a scholar of considerable standing in Asian historical geographical issues, nevertheless did not find long term intellectual and personal satisfaction at Berkeley. He had a foot in each of two departments, geography and history, and his priorities as a sinologist often led him to the halls of history and Asian languages.

One of Wheatley's graduate students, Robert Reed, inherited the department's Asia position a few years after Wheatley's departure. Reed's early research interests on colonial urbanization in the Philippines prepared him to take over the Southeast Asia course in the 1970s. Reed's course, which he continues to teach, commences with the essentials of the region's physical geography and emphasizes a range of human issues by both country and concept. His strength in comparative colonial practices yields an analytical component for this regional course. But not since the days of Wheatley and Glacken has a course on East Asia been offered from a department faculty. Marwyn Samuels broke this pattern for students fortunate enough to have been enrolled during 1975-76, when he held a visiting professor position and taught Geography 164, "China, Japan, and Korea"--a virtual moment in the history of Asian geography courses at Berkeley.

A course on the Pacific known as "The Pacific Islands" appeared in the geography section of the University course catalog for the first time in 1961-62. David Blumenstock, a climatologist who had been with the U.S. Weather Bureau in Honolulu, offered this course on Melanesia, Micronesia, and Polynesia, and included more concepts in physical geography than most regional courses. Blumenstock was a faculty member at Berkeley from 1961-63. His unfortunate early death left the department bereft of any experience in the Pacific, until David J.M. Hooson arrived to teach regional courses on the Soviet Union and the Pacific in the late 1960s. Hooson's regional course on the Pacific, called "The Southwest Pacific," included Australia, New Zealand, and Polynesia. Hooson's emphases and keen understandings of the essential characters of regions made these courses classics in their genre. Hooson, though, has put the "Southwest Pacific" aside to focus on his Soviet work. Nancy Lewis, faculty in geography at the University of Hawaii since 1981, taught this course toward the completion of her graduate studies at Berkeley; it has not been offered since.

A certain lack of quantity in Asia and Pacific courses in the Department of Geography at Berkeley is a shortcoming which is partly remedied by topical courses that include Asia and Pacific case studies. Faculty member Bernard Nietschmann evolved the most notable course in this category, called "Islands and Oceans." The course title evokes its own content: a survey course of ocean and island environments and ecology. Nietschmann's experience in the Pacific, in Torres Strait and Kiribati Islands also has brought numerous examples of indigenous resource management to "Introduction to Cultural Geography." Similarly, Robert Reed has regularly taught introductory cultural geography, and his version of the course reflects his knowledge of Southeast Asian colonialism and urbanization. As many as four hundred students take this introductory course each year. Textbooks are rarely--if ever--used even for these introductory courses. Faculty assemble their preferred choices of conceptual and empirical writings to create a dynamic--if not dialectical--set of course reading material.

To teach about the Pacific, Berkeley geography has moved out of the lecture hall and into the field. Extraordinarily enough, the University of California at Berkeley acquired a field station on the island of Moorea in 1983 at the generosity of Richard Gump. In both 1989 and 1990 David Stoddart led expeditions to Moorea to survey Cook's Bay and the motus, or reef islands. In addition to using the surveying equipment, both graduate and undergraduate students have the opportunity to study vegetation and local human geography. These are research and not teaching expeditions, however, and so a good deal of the learning is left up to the motivated student.

A Sense of Berkeley's Legacy of Asia and Pacific Specialists

One of the most highly acclaimed teachers of Asian geography was a Berkeley graduate whose dissertation topic was a study in culture growth and change of the Middle Virgin River in Utah. Joseph Spencer entered China in 1932, as an assistant district inspector for the Chinese Salt Administration.[2] The Spencer family lived in Yichang, Chongqing, Guiyang, and Yunnan, and did not return to the U.S. until the 1940. After amassing extensive experience in China, Spencer turned to Southeast Asian fieldwork, particularly in the Philippines. His book Asia East by South, A Cultural Geography, is one of the few comprehensive geography textbooks ever produced for the Asian region. During his career in the Department of Geography at the University of California, Los Angeles he devoted attention to teaching and created popular regional course, which was recognized in his reception of the UCLA Distinguished Teaching Award in 1966.

In the Pacific, two Berkeley geographers have made careers at the University of the South Pacific in Suva, Fiji. Bill Clarke and Randy Thaman are able to take the perspective of geographers teaching in the Pacific, and have conducted extensive research on local and Pacific issues. Tourism in small developing countries and agroforestry in the Pacific are two of the recent foci of their work that have resulted in publication. In New Zealand, Hong-key Yoon at the University of Auckland has produced essays on cultural geography of the Maori people in Maori Mind, Maori Land (1987).

Conclusion

The Berkely Department of Geography's historical preference for Latin American studies tended to minimize wide-based support for adding faculty with other regional specialities, but the independence offered in the graduate program encouraged students to pursue their preferred topics and regions. A certain lack of emphasis in offerings of Asia and Pacific coursework at the Department of Geography at Berkeley did not preclude Asia and Pacific Ph.D.'s. Undergraduates in geography, by contrast, are limited by any systematic exposure to Asia and the Pacific, excepting the opportunity to take a "Southeast Asia" course.[3]

The population of the Berkeley campus of the University of California numbers some thirty thousand students, of whom thirty percent have Asian ethnic background. Increasing interest in Asia, combined with decreasing cultural distance across the Pacific basin, will only encourage more work in Asia and Pacific geography at Berkely. Berkeley's Department of Geography has unofficially prioritized East Asia as its next area studies appointment, a move which would be supported widely by the many East Asia specialists in other departments on the campus.

When "East Asia" is taught again, it likely will follow a format similar to the historical and prevailing organization of regional courses taught at Berkeley: the lecture portion of the course will provide a systematic overview, while the reading will be compiled

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from a selection of books and articles about the region. Students and faculty together will integrate lecture and reading material through discussions to create a depth of understanding of the region, despite the necessity to teach about Asia.

Footnotes

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[1] I wish to acknowledge the Institute of East Asian Studies at the University of California at Berkeley for their support of this paper presentation.

[2] Howard J. Nelson's obituary of J.E. Spencer tells the history of Spencer's experience in Asia. "J.E. Spencer, 1907-1984," Annals of the Association of American Geographers, 75(4), 1985, pp. 595-603.

[3] It was as a result of undergraduate complaints, in fact, that the mere listings of regional courses on the Pacific and East Asia, remnants from an earlier time, were removed from the campus course catalog.

ASIA IN THE AUSTRALIAN GEOGRAPHY CURRICULUM

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Abstract

This paper reports on a project of the Australian Geography Teachers' Association Inc., being conducted on behalf of the Asian Studies Council of Australia, which seeks to raise the level of Asian studies in geography teaching in Australia. The rationale for the project and an overview of the present pattern of Asian geography in Australian geography syllabuses are outlined briefly in the first part of the paper, second part of the paper provides an example of the type of materials being prepared as curriculum guidelines for teaching Asian geography.

Introduction

Concern by government and industry that Australian education was failing to provide young people with a suitable foundation in Asian studies led to the preparation of *A National Strategy for the Study of Asia in Australia* by the Asian Studies Council in 1988. The purpose of the Strategy was to challenge Australian educators to bridge the gulf between the Asian reality of Australia's geo-political and economic location and the failure of education systems in the past to make an appropriate curriculum response. The Strategy opened with the clear assertions that:

> The study of Asia should not be an elective for Australia. We need an education that will enable our people to come to terms with their geo-political location. In present-day Australian education, the study of Asia is an elective. It is occasional, periph-

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> eral, avoidable. Asia in our employment practice is minimal, regarded as irrelevant, even eccentric. Asia in our repertoire of national skills is almost non-existent ..... To bring the reality of our education, employment and skills into alignment with the reality of our location of the Asian region is not a matter of indulging a sectional interest. It is a national interest .....

The report went on to describe three "revolutions" in Australia's place in the world since 1939 that make a curriculum focus on Asia a national priority. The first revolution saw the end of Australia's reliance upon Britain and the redirection of foreign policy and defence towards the North American and Asian countries of the Pacific Rim. The second revolution was in trade and followed the ending of the preferential treatment Australian exports had received in Britain when Britain entered the Common Market. Fortunately for Australia, Japanese and South-east Asian markets opened an expanded just as the British one was closing. As a result, the value of Australia's exports to Asia grew from just over 2000 million dollars to just under 20 000 million dollars in the 15 years between 1972 and 1987. This change is still evolving as trade links with India and China starting to grow. The third revolution was an immigration with large flows of migrants from Britain supplemented by European migration in the 1950s and 1960s and them, Asian migration with the ending of the White Australian Policy. Asian Australians now play significant role in the multicultural mosaic of Australian society.

These foreign policy, economic and demographic changes have incorporated Australia closely into the Asian hemisphere and demand a strong curriculum response, Dr. Jiri Neustupny (1989), the Director the Institute for Contemporary Asian Studies at Monash University, argues that such a response requires educating all young Australians to one of three levels of Asia-literacy:

- *Asia-literacy 1* which has the primary objective of promoting a wide understanding of Asian societies and cultures by all Australians.
- *Asia-literacy 2* which incorporates Asia-literacy 1 but adds skills in communicating with Asian people through the medium of English, with introductory studies in sociolinguistics and Asian languages.
- *Asia-literacy 3* involves the training of a small groups/students in Asian languages to a high level of competence with some students reaching semi-native speaker levels.

Neustupny argues that the linguistic studies envisaged for *Asia-literacy 3* "should never be available without *Asia-literacy 1 and 2*". This interpretation of Asia-literacy challenges the traditional dominance of Asian language teaching as the avenue to Asia-literacy and establishes a clear place for geography, along with history, economics and other social sciences as key areas of learning to promote the wide understanding of Asian societies and cultures which is the goal of Asia-literacy 1 and 2.

This paper has been developed from research conducted by the authors for the *Asian Studies in the Australian Curriculum* project which has been developed by the Australian Geography Teachers' Association Inc. on behalf of the Asian Studies Council to promote the study of Asia in the social science syllabuses of Australian secondary schools. The first two stages of the geography component of the project involved a curriculum mapping exercise to uncover the present level of Asian geography being taught and the development of a set of curriculum guidelines. The third stage will involve the preparation of the exemplar teaching materials. This paper reports on the first two stage,s providing, firstly, brief overview of the place of Asia in Australian geography syllabuses and them, secondly, an example of the sort of material found in the curriculum guidelines.

Asia in Australian Geography Syllabuses

What contribution is geography actually making to *Asia literacy 1* in current syllabuses around Australia. An analysis of the Years 8-12 geography syllabuses in all Australian States and Territories reveals that the study of Asia could range on a continuum from a great amount of coverage to none at all. This is because geography syllabuses in Australia tend to concentrate more on the development of skills and concepts than upon the development of prescribed areas of knowledge. All the syllabuses tend to be non-prescriptive and quite open, leaving the selection of topics, themes and examples to school-based decisions or even to the individual teacher. However, as the syllabuses tend to be based around topics, themes and examples developed from the systematic areas of geography (such as, physical geography, population, agriculture, industry, settlement, transport, territories and boundaries), there are many opportunities for incorporating Asian geographical topics, themes and examples into present classroom practice. However, there are no prescriptions that Asian examples be used in any systematic way. Only occasionally is there particular reference to Asian examples.

The actual percentage of Asian examples used in geography classrooms is unknown but a needs survey on "Asian Geography -

Video Resources, developed in conjunction with the Australian Broadcasting Commission (Weston, 1989) as part of this project, indicated some positive results. This small survey of 150 public and private schools in queensland with a return rate of 69 (46%) at a busy time of the year revealed that: many teachers were incorporating Asian topics, themes and examples into their Year 8-12 geography course; most topics, most were in areas such as physical geography, agriculture, development, settlement, and, particularly, contemporary issues; many Asian geography studies were used as contrasts to Australian studies; and resources were outdated, difficult to keep up-to-date given rapid change, hard to find, lacked coverage of all of Asia, often over-generalized, sometimes ethnocentric and racist, and placed Asia at the lower end of the "development continuum".

The only syllabus which prescribes an in-depth study of Asia is the Years 11-12 geography syllabus in New South Wales. Following Year 11 which addresses "Australian in its World Context", the syllabus provides an option in Year 12 of studying either a "Global Environment Lobe" or on "Australia's Neighbours Lobe" which is principally on the geography of Southeast Asia, East Asia, South Asia and the Southwest Pacific. But, teachers appear to prefer the "Global Environmental Lobe" as only 6% of students in 1989 were candidates for the "Australia's Neighbours Lobe".

Teaching Asia Geography: Curriculum Guidelines

The project has identified two broad reasons for studying Asian geography:

- The study of Asian geography can promote an appreciation of global patterns and processes and cultural universals that are necessary for mutual understanding and global citizenship.
- The study of Asian geography can illuminate key areas in Australia's relationships with Asia that can help cement the bonds of understanding and interdependence.

The project has developed nine geographical themes for study from these two reasons:

Asian examples of global patterns and processes

1. Broad global and (Asian) patterns in the location of countries, borders, relief features, climates, ecosystems, population distribution and density, cities and communication networks..
2. Broad global (and Asian) patterns of cultural universals such as diet, religion, race, language, architecture, styles of

government, and their impact on cultural perceptions and the landscape.

3. The causes and effects of global economic and political systems which divide the world and Asia into broad North: South and East: West divisions.
4. Contrasting patters of living conditions around the world (and in Asia), the juxtaposition of affluence and poverty, and the need for appropriate and sustainable processes of development.
5. The global environmental crisis caused by inappropriate and non-sustainable development.
6. The nature, causes and resolution of regional and international conflict.

Australia's relationship with Asia

7. The scale, direction and future terms of Australia-Asia Trade.
8. Asians migration to Australia.
9. Tourism in Asia and Australia.

The guidelines for teaching Asian Geography in the project handbook (Flen and Wilson 1990 - forthcoming) are based upon these nine themes. The section on each theme begins with a classroom vignette which describes how one teacher has approached the relevant theme. Each vignette is followed by some suggested guidelines and principles for teaching Asian geography. Space does not allow the curriculum guidelines for all the themes to be presented here. What follows is an outline of the guidelines for teaching Theme 5 - "The global environmental crisis caused by inappropriate and non-sustainable development".

Sample Guidelines: The Environmental Crisis

> *A Year 10 class, in the Murray Valley is studying a unit on "People and the Environment". The objectives of the unit call for students to clarify their environmental values and, where possible, to take part in programs to improve the environmental. Salinity is major problem in the area so the teacher was keen for students to participate in a community tree planting programme. As a prelude to this, the teacher had prepared a range of activities on tree planting schemes in other parts of the world. The Asian example she chose to highlight was the Chipko movement in*

Northern India. The lesson on the chipkos began with a series of slides and a map showing the scale of the impacts that deforestation has caused in this area. The students then completed a work sheet (Figure 1) on the background, history and ecology of deforestation in Nepal, and the tree planting campaign mounted by the Chipkos which has led to a more sustainable use of resources.

Deforestation is only one of a number of environmental problems facing the people of Asia and the Chipko movement is only one of many environmental group that are active in Asia. Development programmes which have focused on economic growth at the expense of the people and the environment have been common in Asia. This has often been because many Asian countries see economic growth as a solution to problems of poverty caused by a history of colonization, rural-urban drift and over-population in certain areas. Other environmental problems which may be studied include topics, such as: Minamata disease in Japan, the Bhopal tragedy, the fuelwood crisis, overfishing, and urban squaller.

The World Commission on Environment and Development (1987) offers sustainable development as the solution to the problem of balancing environmental considerations with economic development. Sustainable development does not see conservation and development as mutually exclusive issues. Instead, sustainable development is based upon the interaction between them, such that countries adopt ways of developing resources that satisfy the needs and aspirations of the present generation *without* compromising the ability of future generations to meet their needs.

A focus on sustainable development in the study of environment issues in Asia can provide students with a positive feeling things people and business corporations to exercise their "right" to do what they want with land or resources they own or lease. The debates often focus on questions of national sovereignty, the rights of the individual versus the rights of others, individual profit versus the common good, and the desire for economic growth versus the importance of conservation.

Some teachers are reluctant to become involved in issues based teaching because environmental issues are inevitable political. However, political education and environmental education are concerned with assisting students to investigate and come to informed and justifiable decisions of their own, not indoctrination. While some Asian countries control the free and open expression of ideas, even to the point of banning Australian journalist, issues and debate are a natural and essential part of life - and of education - in a democracy such as Australian. Therefore, teachers have no need to shy away from exposing students to a range of alternative viewpoints and debates on Asian environmental issues.

A number of steps can followed in the study of environmental issues in Asia to ensure that teaching proceeds in a professional and ethical manner.

Step 1 - Selecting the issue

Very often the issue may be selected by the teacher. However, it is preferable that students be involved in selecting the environmental issue or problem to be investigated whenever possible. Stimulating ideas may be obtained from the press, television or radio reports and from information from community groups. The issues that "work" best with a class tend to be those that:

- involve students in decision-making about current concerns they have about the global environment and the relationships between their lives and communities.
- Do not have simple "yes" or "no" answers but illustrate the range of views possible on an issue, especially those views that represent all the "shades of grey" that exist and the dilemmas that people have in forming an opinion.
- Provide scope for follow-up activities beyond the classroom through some form of community involvement and action.

Step 2 - Defining the key questions and problems

This step involves providing students with a small set of resources (e.g. newspaper cuttings, photographs, letters from interested parties, guest speakers, tape- or video-recorded interviews, slides) so that students in a short space of time are able to define the issue, and recognize the social, economic, cultural, political and ecological questions at stake and the major alternative viewpoints on the issue. This stage should not oversimplify the issue or allow particular views to dominate.

Step 3 - Researching and evaluating the evidence

Students can be guided through a series of structured enquiries that allow them to gather detailed information on the background to the issue through a variety of class and library reading, viewing and listening and research activities. The evidence that is collected needs to be organised into categories reflecting the dimensions of the problem and the major views on the issue. These can then be tested for relevance, logical consistency and bias. This testing of the evidence is a vital step in investigating an issue as it enables students to recognize the values-laden nature of much environmental discussion and debate and to develop skills in evaluating evidence.

Step 4 - Evaluating alternative solutions

Students may have started to form an opinion of their own by this stage, so they should be encouraged to return to the alternative viewpoints or solutions identified at the beginning of the study and begin to supplement them with ideas suggested by students from their enquiries. Especially, students should be guided towards an understanding of the power relationships involved and upon which decisions on the issue are likely to be made. This will allow students to recognize the role and influence of interest groups in Asian society and to make comparisons with the Australian situation. Role play and simulation are excellent strategies to use here as they allow students to recognize alternative views and the values underlying them. They also encourage students to give equal attention to the important task of making proposals for future action. The evaluation of evidence undertaken in the previous step will be of use here as students evaluate the impact of possible solutions to environmental problems, and the likely costs and benefits for individuals and particular groups and countries in Asian society.

Step 5 - Decision-making

The aim here is for students to make an informed decision based upon their analysis and evaluation of the evidence and viewpoints in the previous steps. Students should be expected to understand the values basis of their recommendations and evaluate the short and long term implications of them. They should also be able and willing to justify them in a variety of setting. Class discussion and debriefing sessions can be used to help students appreciate the strengths and weaknesses of their positions and to empathise with, and respect, the decisions that other students may have made.

Students must be helped to understand that any Asian environmental issue they are studying is probably a lot more complex than the resources they have utilized suggests, and that Asian cultural values may give rise to solutions and recommendations quite different from those that seem straight forward and logical to them. This is the step where work on environmental issues and intercultural understanding becomes inextricably linked.

Step 6 - Taking action

An important part of issues based teaching concerns the question of what do students do after they have investigated an environmental issue and come to an informed and reasoned decision that something has to be done. No hard and fast rules can be given for involving students in taking action on the decisions that they make. Instead, teachers need to be sensitive to local concerns and traditions in education and seek the support of parents and school administrators. Actions that Australian students take on Asian environmental issues also need to be sensitive to the cultural conditions prevailing in the Asian region or country involved. Yet, despite these problems, there would have to be a certain degree of deception in leading students through and important values laden issue and encouraging them to make recommendations and plans to rectify any problems - and then leaving students high and dry within any school-endorsed avenue for implementing their plans.

A wide range of actions are open to Australian school students. This may involve writing to groups such as the Chipkos or Malaysia's active Friends of the Earth group commending them on their environmental protection campaigns and expressing solidarity in future campaigns. Such groups could be requested to help in establishing links with geography classes in schools in their countries and invited to send information on future campaigns. Letters could also be sent to Asian governments commending them on wise decisions on sustainable development - or urging them to consider particular social and ecological concerns related to particular environmental issues. Australian-based actions are possible also, and include mounting educational displays on Asian environmental issues and alternative viewpoints and recommendations in school or local libraries and shopping centres, writing letters to Australian politicians urging particular actions, and giving short talks and/or more creative presentations to community groups and service clubs. The maximum to "think globally and act locally" is very important when it comes to action on Asian environmental issues and often the most effective forum of action might be in an examination by students of the relationships between their own lifestyle choices and actions and some of the environmental problems of Asia.

Conclusion

This paper has attempted to provide a flavour of work presently being conducted in Australian to raise the importance, amount and quality of Asian geography being taught in secondary schools. The rationale for this, together with a brief overview of the present situation formed the first part of the paper. The second part of the paper focused on the theme of "Environmental Issues and sustainable Development" to illustrate the nature of the materials in the curriculum guidelines being produced to promote the teaching of Asia in the Australian geography curriculum.

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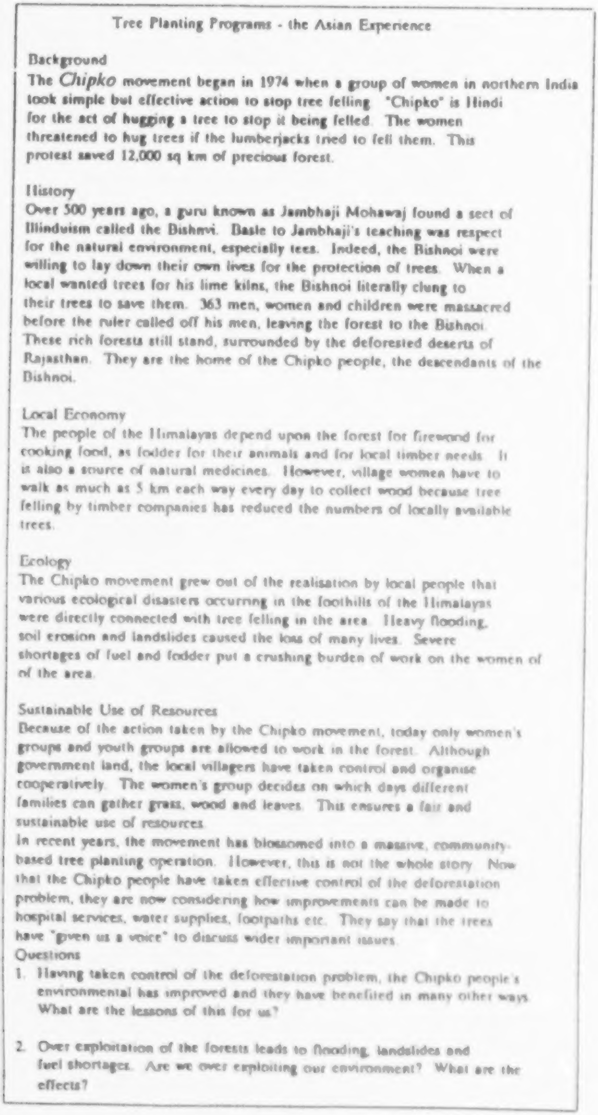

Tree Planting Programs - the Asian Experience

Background

The *Chipko* movement began in 1974 when a group of women in northern India took simple but effective action to stop tree felling. "Chipko" is Hindi for the act of hugging a tree to stop it being felled. The women threatened to hug trees if the lumberjacks tried to fell them. This protest saved 12,000 sq km of precious forest.

History

Over 500 years ago, a guru known as Jambhaji Mohawaj found a sect of Hinduism called the Bishnvi. Basic to Jambhaji's teaching was respect for the natural environment, especially tees. Indeed, the Bishnoi were willing to lay down their own lives for the protection of trees. When a local wanted trees for his lime kilns, the Bishnoi literally clung to their trees to save them. 363 men, women and children were massacred before the ruler called off his men, leaving the forest to the Bishnoi. These rich forests still stand, surrounded by the deforested deserts of Rajasthan. They are the home of the Chipko people, the descendants of the Bishnoi.

Local Economy

The people of the Himalayas depend upon the forest for firewood for cooking food, as fodder for their animals and for local timber needs. It is also a source of natural medicines. However, village women have to walk as much as 5 km each way every day to collect wood because tree felling by timber companies has reduced the numbers of locally available trees.

Ecology

The Chipko movement grew out of the realisation by local people that various ecological disasters occurring in the foothills of the Himalayas were directly connected with tree felling in the area. Heavy flooding, soil erosion and landslides caused the loss of many lives. Severe shortages of fuel and fodder put a crushing burden of work on the women of of the area.

Sustainable Use of Resources

Because of the action taken by the Chipko movement, today only women's groups and youth groups are allowed to work in the forest. Although government land, the local villagers have taken control and organise cooperatively. The women's group decides on which days different families can gather grass, wood and leaves. This ensures a fair and sustainable use of resources.

In recent years, the movement has blossomed into a massive, community-based tree planting operation. However, this is not the whole story. Now that the Chipko people have taken effective control of the deforestation problem, they are now considering how improvements can be made to hospital services, water supplies, footpaths etc. They say that the trees have "given us a voice" to discuss wider important issues.

Questions

1. Having taken control of the deforestation problem, the Chipko people's environmental has improved and they have benefited in many other ways. What are the lessons of this for us?

2. Over exploitation of the forests leads to flooding, landslides and fuel shortages. Are we over exploiting our environment? What are the effects?

Figure 1: Worksheet on "Tree Planting Programs - The Asian Experience" (Adapted from Fox and Simons, 1989)

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SOUTHEAST ASIA IN BELGIAN SECONDARY EDUCATION

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Abstract

The place which Southeast Asia takes in the geography lessons of Belgian secondary education can be seen from the curriculum, textbooks, atlases and test questions. All pupils in all sections of Belgian secondary education are given geography lessons about Southeast Asia as a whole and about special subjects concerning India, China and Japan. Too few lessons, a too rigid curriculum and the young age of the pupils are the most important causes for a very traditional teaching approach in style and content. The test questions are very strongly based on memory and factual knowledge, and the overwhelming majority of the questions are purely semantic.

Introduction

The study of Southeast Asia in the geography lessons is part of the treatment of "the continents outside Europe". The research on this topic fits into the framework of a broader research project on the value of lessons and tests in Belgian secondary education. Belgian secondary education is a 6-year program and in each year geography belongs to the general educational and mandatory subjects for all pupils, unfortunately with only a very limited number of lessons per week. In Belgium, the French-speaking education system and the Dutch-speaking education system are autonomous. This article is only concerned with Dutch-speaking secondary education, which includes around 60% of all Belgian pupils. Teaching methodologists and educationalists worked together on the analysis of test questions for geography, biology and chemistry.

The study of Southeast Asia is based on the curriculum, textbooks and school atlases, as well as on the test questions asked. The school and teacher characteristics, curriculum units, types of questions, intellectual operations, products and content, and the

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degree of difficulty were all separately researched. Besides, the correlations between them were also researched and a comparison was made with the treatment of other continents and with the themes treated in other years of study.

1. The Curriculum

In Belgium and, more particularly, in the Dutch-speaking part of the country, the geography curricula are quite strictly set out, in respect of the time that can be spent on a particular subject and the subjects that should be dealt with. State and non-state education each have their own curriculum. According to estimates, about three quarters of all pupils follow the non-state curriculum. In both curricula, the study os Southeast Asia is part of the study of "the continents outside Europe", to which an equal number of lessons is devoted; namely two teaching periods per week in the second year of secondary education in the state curriculum has one teaching period, spread over the third and fourth year. Because the Soviet Union is included in the study of the continents outside Europe according to the non-state curriculum, but not according to the state curriculum, the treatment of Southeast Asia in the state curriculum gets somewhat more space (25% of the total number of lessons spent on the continents outside Europe), than in the non-state curriculum (15.4%). In this calculation and in everything that follows, Japan is included in Southeast Asia, even though the textbooks often speak of monsoon Asia and Japan is sometimes not included in that region.

The state curriculum requires that the following teaching material units be discussed: 1) the "physical framework" with big relief units and the monsoon climate (mostly with respect to the way of life); 2) the "people in monsoon Asia", including the population figures, the social and ethnic groups, the population density and evolution, and the standard of living; 3) the traditional "agriculture" with an emphasis on the cultivation of rice in India; 4) the "People's Republic of China" with the social organization and the economic reforms; 5) "Japan", the most Western of the Asian countries, with modern industry, urban development and a high standard of living; 6) in addition, lessons may be spent on Indonesia, the modernization of the Indian economy or a contemporary issue.

The curriculum of the non-state education includes the following topics on Southeast Asia: 1) getting to know the "physical environment" and its influence on the distribution of population (extent, relief-hydrography, monsoon climate, distribution of population); 2) the "agrarian society and agricultural areas" with the accent on landscape geography and the relationship between the agricultural system and the physical environment, applied to a rice-growing area in India and/or a wheat-growing area in the Chinese arable plateaus; 3) "industrial development in India and China" in relation to government policy; 4) the "high level of industrialization in Japan" with its extent and diversity, the import of raw materials and energy, the limited space for living, agriculture and industry and, as an option, the establishment of Japanese industry in other parts of Southeast Asia.

From the above, it appears that both curricula present a good deal of similarity. Because of the young age of the pupils and the low number of lessons, the study of Southeast Asia remains limited to a few general topics. The regional approach is of secondary importance or at the most is brought up as an illustration. Japan is always treated as a highly urbanized and industrialized country which differs from the rest of Southeast Asia. India is mostly seen as a model of traditional rice-growing, linked to the monsoon climate. China is discussed because of its specific governmental influence on demography, but also on agriculture and industry. Except for those elementary studies of Japan, India and China, little is done in the way of a regional approach. It mostly remains an option or an elective extension, which in practice is not used.

During the last two years of secondary education, themes and problems in the field of general geography are prescribed both by the state and the non-state curriculum. The topics are usually studied from the perspective of Belgium and Western Europe. If these topics are seen on the world scale, Africa and Latin America appear to be taken much more often as a reference region than Southeast Asia. In the curricula, there are no explicit references to using Southeast Asia as a whole, or particular countries of Southeast Asia, as a referent problem.

2. Textbooks

In the Flemish part of the country there are no less than 7 different textbook series on geography intended for secondary education. Two of these textbooks are developed according to the state curriculum, and five according to the non-state curriculum. Since the Belgian curricula quite strictly prescribe the subject material, it can be expected that the textbooks will very closely follow the geography themes imposed by the curriculum, in respect of the content and also the amount of material. And indeed, in general that is the case, but the share of Southeast Asia in the total number of pages dedicated to the continents fluctuates between 1.4% and 7.8%, which is actually very little. It is remarkable that Japan (2.8% to 10.3%), and also India (3.4% to 6.9%) get a larger and more homogeneous share. Moreover, the share of India is more similar in the various textbooks.

In the two textbooks which are prepared according to the state curriculum, the total number of pages dedicated to China is very different (twice as many pages in one textbook as in the other), but as far as content is concerned, they are very similar to each other. The political-historical development and the population of China are only treated in the form of a very short introduction. Agriculture, with its fundamental, post-war conversion, and the people's communes, are clearly the main subject. The textbook with the most space devoted to China also deals with the theme "natural disasters conquered" with the enormous works on the Hoangho (Yellow River) as an example.

In the five textbooks which are prepared according to the non-state curriculum, there is neither a historical introduction, nor an introduction on Chinese population. The text on China only deals with the two traditional themes; on the one hand agriculture with its advantages and problems, regional contrasts, cultivation of wheat, collective agriculture and people's communes, erosion; and on the other hand industry, which however in three of the five textbooks is integrated in or compared with the situation in India and China; industry is associated with the five-year plans, the Great Leap Forwards, and the significance of Manchuria.

To what extent China and India are to be taken as a frame of reference for the discussion of issues from general geography can also be seen in the textbooks for the last two years of secondary education. The Chinese people's communes are discussed in two textbooks only, whereas India appears in all textbooks as a model for the study of agriculture, more specifically the Green Revolution, the agriculture calender and a agricultural village.

3. School Atlases

In secondary education four different school atlases are used. They are all very carefully edited, with excellent contents, partly because they are all published by or in collaboration with internationally renowned cartography publishers. The "Algemene Wereldatlas" (General World Atlas) and the "Kleine Wereldatlas" (Small World Atlas) are published by Wolters-Leuven, but, cartographically, they are in fact a version of the world-famous "Wolters-Noordhoff Atlas Productions" from Groningen, The Netherlands, where cartography publications for different countries have been created. Cartographically speaking, the "Standaard Atlas" has been supervised by the Cartography Institute of "List Verlag" from Munich, Germany. The "Atlas, Belgie en de Wereld" (Atlas, Belgium and the World) from the publisher's De Sikkel is part of an international series, cartographically supervised by the "Geographisches Institute Ed. Holzel" (Geographic Institute Ed. Holzel) from Vienna; the well-known German "Atlas zur Erdkunde" (Geographical Atlas) and the French "Atlas general Bordas" (Bordas General Atlas), for example, also belong to this series.

The importance of Southeast Asia in the school atlases is very similar, namely between 5% and 6.5% of the total map area; the only exception is the "Standaard Atlas" with hardly 3.5%. It is remarkable that China gets on average more atlas space than India and considerably more than Japan; again the "Standaard Atlas" takes a different stance with an equal share for China and Japan. But still, China usually gets only a physical and economic map; in two atlases a map on population density is also included, whereas the "Algemene Wereldatlas" (General World Atlas) from Wolters gives, in addition, special subject maps on China, with economic zones, and Beijing and China at the end of the 19th century. The additional space for China is in the first place a result of the immense size of this country, whereas, on the other hand, the Japanese islands can more easily be arranged, so that several subjects can be illustrated on the same page.

4. Test Question and Curriculum Units

The test questions for the third year in 166 secondary schools from the province of Antwerp were researched for the 1986-87 school year. In total, 9,437 test questions were asked and 2,733 of those questions had to do with Southeast Asia, of which 955 were for reformed secondary eduction (type 1) and 1778 were for traditional secondary education (type 2). The same curriculum is valid for both, and prescribes that 30.8% of the total lesson time should be devoted to Southeast Asia in the third year. We assume that a balance exists between the number of questions asked and the de facto number of lessons given. In both education types, a significant difference exists between the expected and the actual number of test questions; the first curriculum unit is overrepresented in the test questions and the last curriculum unit is underrepresented. As far as Southeast Asia is concerned, however, the deviation between the expected and the actual number of questions asked is very small; the actual questions asked are 11% under the expected questions in type 1 schools, but only 3% in type 2 schools.

In the curriculum unit on Southeast Asia, the subjects of monsoon climate (mostly in type 2) and population (more in type 1) are strongly predominant. After that, industry in Japan follows as an important subject. In traditional education, again many questions cover the geographical situation and also the relief gets much more attention than in the reformed secondary education. The agriculture subjects (rice in India and Southeast Asia, wheat in China) occur quite often in the questions, particularly in type 1 schools. There are also more questions on industry in India than in type 2 schools. The remaining mandatory subjects are only lightly covered. There are virtually no questions asked about the optional subjects, which is in strong contradiction with the curriculum unit on Central and South Africa. Questions which are not explicitly mentioned in the curriculum mostly cover the Chinese people's communes and the Chinese arable plateaus, but their number still remains quite small. Here too, inertia plays a role and teachers apparently forget that China has embarked on new projects. In many cases, this is due to the continuance of subjects from old curricula, which in the meantime have been dropped. Also, the success of some elective subjects is rather due to a similar inertia (because they were mandatory before). Graduates in geography do not stick so closely to the curriculum; they ask more questions about other geographical aspects, especially physical ones, whereas teachers without geographical university training show a tendency to ask more questions on historical and economic topics.

5. Types of Questions

Test questions can be analyzed with a view to the externally observable activities of the pupils, namely what they must do, and in what form they have to give their answers. We have made a distinction between 6 types of questions, of which the first five are accepted in the scientific didactic literature. The last type, "drawing question", is added because the graphic component is very important in geography and it contributes to the modern culture technique "graphicacy".

In the first year, more than half of the test questions belong to the short answer type, in the third year about 30%, both overall and for the curriculum unit on Southeast Asia. On the other hand, the free answer question scores very high with 50%. The three types of questions on Southeast Asia occur more often than in the total for the third year and for the first year; the drawing of the monsoon system is requested quite often. All in all, the distribution of test questions throughout the 6 types of questions is less good than in the first year, and particularly the overabundance of free answer questions is a cause for concern.

6. Intellectual Operations, Products and Content

Test questions must measure the different facets of intellectual activity. In order to check this, it is useful to rank the questions hierarchically by analogy with the objectives classification. For this we use the intelligence cube of Guilford, slightly adapted to the specific methods of working in geography.

6.1. Intellectual operations. Critical thinking is required for nearly 14% of the test questions about Southeast Asia. This is noticeably more than for the questions on other continents, whereas this type of question, understandably, was not present in the first year. On the other hand, convergent thinking occurs much more often in the first year than in the third year. It is regrettable that the memory plays such a heavy role in the third year (72% for the whole year, 65% for Southeast Asia); in the first year memory is equally important. The intellectual operation 'observation' is the second most important at all levels.

Observation positively correlates with each question type, except with the free answer form. This does not prevent the fact that memory correlates most with the free answer form. From these two assessments we conclude that free answer questions are directed towards both memory and thinking.

6.2. Intellectual products. Just as in the first year, the test questions in the third year remain strongly directed to facts and relations, and partly also to concepts. In the third year and particularly on Southeast Asia, many system questions occur and, to a limited extent, even implication questions. The correlations between products and question types are again analogous with those of the first year. Facts correlate with almost all the question types, but not with the free answer form. This last type of question sores particularly high for concepts, relations and systems. Drawing questions to a large extent relate to systems, and also to facts, but strangely enough not to relations, which was the case in the first year.

6.3. Intellectual content (the language of the question).
Here we are dealing with linguistic usage - the language of the

teacher, who is the author of the question. The way in which the test questions are formulated makes clear which method of communication the pupils can use. We have slightly adapted the contents of the Guilford cube for the geography tests. With regard to the language of the question, remarkable differences can be observed between the first and the third year. Semantic questions (consisting exclusively of words and sentences without any additional support) made up 55% of all the test questions in the first year, but in the third year they represent more than 73% of the total questions, though a little less for Southeast Asia. There are also less figure and number questions in the third year. Map questions correlate strongly with drawing questions, whereas semantic questions are connected with the free answer form.

7. Degree of Difficulty

In general, the test questions on Southeast Asia reflect the degree of difficulty which is characteristic for all the continents outside Europe, but there is a particularly big contrast as compared with the degree of difficulty in the first year. There are few very easy questions in the third year, whereas in the first year a good quarter of all test questions are very easy. In the third year, 40% of the questions belong to the group of easy questions, which is less than in the first year. The differences between school types 1 and 2 are not very large, but the questions in the reformed secondary education are still a little easier than in the traditional type of education. The correlations between the degree of difficulty and the question types show that in the third year and also with regard to Southeast Asia, the easier questions correlate with short answer questions. The free answer form is more closely connected to a higher degree of difficulty, while drawing questions belong mostly to the medium level of question.

8. Points of Discussion and Conclusions

The following conclusions are at the same time points of discussion, which can be of practical use for those responsible for the curricula, but also for teachers, with a view to making geography more valuable as a general education subject.

- In the Belgian curricula and in the geography textbooks, Southeast Asia is described in relation to the monsoon climate and the relief, on which the population distribution is based. India and China are treated as examples of the cultivation of rice and industrial development, while urbanization and modern industry and topics related to Japan. However, stimulating subjects are absent and there is a big danger of traditional inertia. Populous countries like Indonesia and the Philippines are not dealt with at all.

- The school atlases are carefully edited and include a global relief map of Southeast Asia, as well as a separate physical and economic map, together with a map of population density for India, China and Japan. Other, more specific thematic maps can only very exceptionally be found. However, they do occur quite often in the textbooks.
- The study of Southeast Asia gets too few lesson periods in the second or third year of secondary education, and, in addition, it is taught to pupils who are too young. It would be desirable that these elementary studies be complemented by more stimulating and contemporary topics related to Southeast Asia, and taught to pupils at a more mature age.
- 13% of the lesson periods are still in the hands of teachers who have not received university training in geography. In the new uniform structure, this problem can become even worse because the demands with respect to certificate of competence are less strict.
- Test questions are too often drawn up by individual persons, and not by the teachers of geography as a team. The quality of the questions with respect to form and content can be better guaranteed when they are drawn up in a group.
- The curricula are too strictly laid out and the first curriculum units get much more attention than is planned, whereas the last units are not often enough dealt with. The study of Southeast Asia does not really suffer from this shortcoming, but the subjects are very traditional and do not sufficiently reflect the living and working society.
- In the question types, a distortion has been noticed. There is a large disproportion in favour of the free answer form and the situation is worse in traditional secondary education than in reformed secondary education. There should particularly be more drawing questions in order to be able to evaluate graphic skills.
- Test questions are directed too much towards memory. Divergent thinking and critical thinking must get more attention through application questions.
- The testing of pure knowledge of facts occurs in nearly half of

the questions. Relations and in part also implications and transformations must receive a more important share.

- The overwhelming majority of the test questions are asked in a purely semantic way. For each question, pupils should be able to rely on communication means such as text, numerical data, a map or an illustration. In this way, "graphicacy" is imparted to them.
- The degree of difficulty can be raised through a better language of the questions, through the reduction of pure factual knowledge and through a decrease in the identification and designation verb groups.

SOUTH-EAST ASIA IN THE SECONDARY SCHOOL: ENGLAND AND WALES

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Abstract

This paper reports a study of the coverage and content of teaching and learning about South-East Asia in England and Wales. Data were collected from a range of sources, including analysis of public examinations and a questionnaire survey of schools in one Local Education Authority. The Interim Report of the Geography Working Group for the National Curriculum for England and Wales was also examined. Based on the evidence obtained, 11 to 16 year-old children in England and Wales would seem to be exposed to a piecemeal and partial coverage of South-East Asia, with a tendency to use South-East Asian topics and areas as examples of issues or problems.

Introduction

What is taught of South-East Asia to children aged 11 to 16 years in schools in England and Wales? This was the question which stimulated the preparation of this paper. In particular, we wished to try to discover what quality of areal or regional coverage of South-East Asia there is in the average secondary school in England and Wales, what topics or themes are covered and what teaching materials are commonly in use. Since future syllabuses will be closely controlled by the new National Curriculum, we also considered what is being suggested.

A Problem of Definition

A problem that rapidly became apparent was that of defining exactly which countries and states are included in South-East Asia.

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Strictly speaking, the area should include countries to the south and the east of mainland Asia as defined by the Indian Sub-continent and China. In this definition, South- East Asia would include Taiwan, Hong Kong, the Philippines, Indonesia, Malaysia, Vietnam, Cambodia, Laos, Thailand and Myanma (Burma). In practice it seems that many people include the Indian Sub-continent, China, Korea and Japan in their definition of South-East Asia, thus enlarging the area considerably and including several other more developed regions.

For the purpose of this study, we decided to adopt the broader definition of the macro region, including the Indian Sub-continent and China and Japan. The findings show this to be an interesting decision, as the apparent neglect of the peninsulas and islands of South-East Asia is highlighted by the fact that most of the attention given to Asia in syllabuses for 11 to 16 year-olds in England and Wales focuses on India, Bangladesh, China and Japan.

The Evidence from Syllabuses for Public Examinations

The school leavers' examination in England and Wales is the General Certificate of Education (GCSE). Most sixteen year- olds in the country take examinations in one or more subjects in the GCSE. Therefore there is exclusive concentration on study of GCSE syllabuses in courses for 14 to 16 year-olds. In some schools a start is made on work for GCSE as early as the third year of secondary school, that is with thirteen year- olds. Thus the GCSE syllabuses are very influential in the secondary school curriculum.

The syllabuses are offered by five Examination Groups, and there are fifteen geography syllabuses available at the time of writing. Schools can select which of these they wish to teach. Syllabuses must be based on National Criteria for the GCSE. They are, in fact, all vetted by the Secondary Examinations and Assessment Council, a body set up by the government, to check that they reflect these criteria. Because of this, the syllabuses are well constructed and based on a clear set of aims and objectives. They all adopt a broad people-environment perspective and all must encourage enquiry as the main mode of learning.

The syllabuses tend to focus on 'themes', 'topics' or 'issues' rather than on areas or regions. For example, the NEA (Northern Examining Association) Syllabus A lists:

The Topics
1.Population Geography
2.Food and Water Supplies
3.Energy Resources

4.The Geography of Manufacturing
5.Urban Geography
6.Recreation, Leisure, Tourism
7.Hostile Physical Environments and the Human Response to them

while the LEAG (London and East Anglian Group) Syllabus B has "three themes which emphasize the study of the geographical aspects of important social and environmental issues":

1.Issues in Urban Geography
2.Issues in Economic Geography
3.Issues in Physical Geography

Teachers are usually expected to select their own regional examples and case studies, often with some guidance in terms of scale of study or broad regional divisions. Thus for the NEA Syllabus A, three broad concepts are set out, viz. environmental interactions; patterns and movements in space and time; perception and decision-making. A table is then provided to show how the key ideas related to these concepts are to be applied in studying the topics (listed above) in small localities, at the regional/national scale and the international and global scale.

In the case of the LEAG Syllabus B, the three themes are to be studied within the following areal contexts:

(a) **a first hand study of a small area, preferably the student's home area**
(b) **contrasting areas from within the British Isles**
(c) **contrasting areas from outside the British Isles and within the 'developed' and 'developing' worlds.**

Thus it is important to note that there is a tendency not to specify actual regional examples or case studies in the syllabus documents. The syllabuses for 1990 (1991 in the case of NEA) were analysed to ascertain the level of specification of South-East Asia topics and areas. It was noted that references to South-East Asia and to Asia more broadly were quite limited in number compared with other world regions. The topics, locations and syllabuses are set out in Table 1.

Analysis of locations specified shows that of the total of 44, twenty one locations were within the Indian Sub-continent. Bangladesh, clearly seen as the world's problem region par excellence, was mentioned six times. There were eight references to Japan, including three specific mentions of Tokyo. China was referred to five times, and Asia once. The references to South-East Asia proper, i.e. the islands and peninsulas, totalled only nine, with two for Malaysia, one each for Thailand, Indonesia, Philippines and Java and three for South-East Asia in general.

It is also noticeable that of the topics mentioned in the syllabuses, twenty-one were about what may be generally termed 'problems'. These may be summarised as:

- **water a scarce resource, drinking water**
- **population growth/change, attitudes to population control, overpopulation**
- **plate boundaries, other hazardous physical environments**
- **unreliable monsoon, drought**
- **flood prevention, typhoons, cyclones**
- **deforestation**

Based on the evidence of the syllabus statements for the GCSE, the picture which 14 to 16 year-old students in England and Wales gain of South-East Asia may be limited in its coverage, unconnected in terms of spatial distribution, piecemeal and mainly about the problems of the people and their environments. It is to be hoped that in practice, teachers recognise the inherent dangers in this and provide a more systematic coverage of the macro-region, the nature of its environments and the quality of life of its people.

Since the syllabuses do not necessarily provide precise details of the spatial context of the study of the topics, themes and issues prescribed for study, it was decided to make recourse to the actual examination papers and analyse these to try to ascertain what students would be expected to know of South-East Asia in order to make a creditable attempt at completing the examination.

Evidence from GCSE Examination Papers

The common pattern of assessment for the fifteen syllabuses is by two written papers set and marked by the Boards, together with a school-based element, weighted between 20 and 50 percent of the total assessment. The school-based element is commonly some form of investigation, enquiry or field study undertaken by the candidates. It may be assumed that the majority of this element is concerned with local or UK centred topics, so we had to turn to the papers set by the Boards for evidence of assessment of knowledge and understanding of topics within the spatial context of South-East Asia. We

TABLE 1: Reference to S.E.Asia topics and locations in gcse syllabuses for 1990/91

Topic/Theme	Location	Syllabus
water-scarce resource	Indus Valley	LEAG A
secondary industry	Damodar Valley	LEAG A
secondary industry	Japan	LEAG A
population change	(small bustee scale)	MEG A
attitudes to population control	Asia	MEG A
attitudes to population control	China or India	MEG B
quality of life,	West Germany compared with Bangladesh	MEG A
seismic/volcanic activity	Krakatoa	MEG B
seismic/volcanic activity	Japan	MEG B
rubber estates	Malaysia	MEG B
rice cultivation	an area of SE Asia	MEG B
motor vehicles	Japan or USA	MEG B
high tech industry	Japan or/ W. Germany	MEG B
craft industry	Thailand	MEG B
drinking water	Indonesia	MEG C
expansion of airport	Tokyo	MEG C
effects of Pacific Plate boundary	Japan	MEG C
unreliability of monsoon	Central India	MEG C
afforestation	China	MEG C
limiting city growth	China	MEG C
shanty town growth	Calcutta	MEG C
tin mining	Malaysia	MEG C
nature of work/employment	Chinese commune	MEG E
hydrosphere	Ganges	MEG E
flood prevention	Bangladesh	MEG E
drought	India	MEG E
relationships between developed and developing countries	Sri Lanka	MEG E
relationships between developed and developing countries	Philippines	MEG E
overpopulation	Ganges delta	NEA B
city in developing region	Ganges delta	NEA B
subsistence rice/hazardous physical environment	Ganges delta	NEA B
urban motorways	Tokyo	NEA C
problem areas in less developed countries	Bangladesh	NEA C
tourist development	China	NEA C
typhoons	SE Asia	NEA C
cyclones	Bangladesh	SEG B
irrigation	Bangladesh	SEG B
commuting	Tokyo	SEG B
migration	SE Asia	SEG B
shanty development	Calcutta	SEG B
terracing	Java	SEG B
flooding	Bangladesh	SEG B
deforestation	Nepal	SEG B

analysed all question papers for the June 1989 examination.

Our analysis showed that it was quite common for data about South-East Asia as an entity or about countries in South-East Asia to be contained in general resources for questions. The most common example was data in map or table form at the global scale. There were twelve complete questions specifically on topics or areas in South-East Asia and six small parts or sub- sections of questions. We consider this to be a small proportion of the total number of questions and sub-sections set over the thirty examination papers. The topics and locations are set out in Table 2. .

The tendency to focus on issues and problems such as flooding, hurricanes, population growth, quality of life, life expectancy, poor urban conditions and transport is to be noted. It is also clear that there is an emphasis on Bangladesh and India as case studies for these problems. Reference to the peninsulas and islands of South-East Asia proper as opposed to mainland Asia is notable for its absence.

A final comment on the analysis of GCSE syllabuses and examination papers is that in practice, with several of the schemes, for example, MEG Syllabus D (Bristol Project), students do not necessarily have to have studied the specific regions used as examples in examination questions. Questions often focus on the practice of skills of analysis and synthesis and candidates are expected to be able to obtain information required to answer the question through analysis of the data provided. They should be able to do this with data derived from areas, regions and cases that they have not actually studied during the course.

A Survey of Bromley Schools

The analysis of GCSE syllabuses and question papers could provide only generalised information and so we decided to carry out a case study of practice in the Secondary (11-18 years) schools of one London Borough, that of Bromley on the south-eastern margin of London. Questionnaires were sent to the Heads of Geography Departments of seventeen of the Borough's Secondary schools, the eighteenth being the workplace of one of the authors. We received ten completed questionnaires, a return rate of 58.8%.

The questionaire asked three simple questions:

1. **What do you teach of South-East Asia, with 11 to 16 year olds? (with space to tabulate responses by year group under the headings: area(s), topics, themes)**

TABLE 2: Topics and locations in examination, June 1989 papers

Complete questions

Topic	Location
population	Asia
population	China
population growth	Calcutta
poor urban conditions	Calcutta
population and irrigation	N.W.India
population structure, immigration, land shortage	Singapore
urban structure, transport problems, new towns	Singapore
transport	Sri Lanka
flooding	Bangladesh (two questions on this)
farming	South-East Asia
farming	Indian village

Part questions

Topic	Location
hurricanes	Bangladesh
life expectation	Bangladesh, India
transport	Japan
rate of natural population increase	India
employment structure	India, Japan
coal exports	China

2. **What main resources do you use? (with space to tabulate responses by year group)**
3. **How do you evaluate your current teaching of South-East Asia?**

No attempt was made to define the boundaries of South-East Asia in the questionnaire and the responses seem to demonstrate the confusion about the definition of what constitutes the macro region. It is obvious that some of the teachers include mainland Asia (Indian Sub-continent and China) and Japan in their definition of South-East Asia, while others did not mention these areas and may have been assuming that the questionnaire referred only to the south eastern littoral of Asia, that is the peninsulas and islands.

The responses to question one (see Table 3) show a very partial and piecemeal coverage, with an increase in years four and five as GCSE courses are undertaken. One school used no examples from South-East Asia for the 5th year (15-16 year-olds). Industrialisation in Japan is the dominant theme, with seven out of ten schools using it as an example of rapid industrialisation, high technology industry, car manufacturing and the functioning of multinational companies. Very little mention was made of political problems. Only one school mentioned concern for the effects of recent conflicts such as that in Viet Nam. Hong Kong was mentioned only twice, despite its obvious relevance as an example of impending political change and the possible spatial, environmental and cultural consequences. It is also an example of clear relevance to people in Britain. Ecosystems, natural hazards and farming, especially rice cultivation and plantation agriculture are other topics mentioned in the returns. Perhaps the single mention of tourism in Thailand represents the growing popularity of this venue in Britain.

In answering the question on resources, most of the teachers commented on the lack of resources available on Asia. The teachers rely chiefly on worksheets made up from a variety of sources, including newspaper articles and materials produced by charities such as Christian Aid. At GCSE level, that is years four and five, considerable use is made of past examination questions which are resource based questions and provide useful materials for analysis. Unfortunately the GCSE has not been going long enough to provide a wide enough range and as we have already seen there are few questions on South-East Asia in any case. Everyone has made use of a well known video series on Japan, but this is now beginning to look dated. One school undertakes a visit to the Commonwealth Institute in central London in the second year (12-13 year-olds). Textbooks provide the most common resource and there is a fairly

TABLE 3: Survey of areas, topics and themes covered in Bromley schools

Coverage Area	Topic/theme	no. of times mentioned for yrs			
		1	2	3	4/5
Bangladesh	population growth			3	1
	agriculture				1
	monsoons/floods				3
Borneo	soil erosion				1
China	rice cultivation				1
	development problems		1		
	communes			1	
	population problems			2	2
Hong Kong	urbanisation & problems of change				2
India	contrasts between urban/ rural life			1	1
	problems of an ex-colony				1
	population and food supply			1	
	Green Revolution and rice cultivation		1	1	
Indonesia	Krakatoa	1	1		
	Monsoon climate			1	
	tropical rain forest		1		
	population density in Java			1	
	Jakarta				1
	mangrove swamps				1
Japan	urbanisation			3	
	vulcanicity/ earthquakes	1	1	3	
	industrialisation			3	4
Malaya	rubber plantations		1		2
Singapore	urbanisation				1
South Korea	industrialisation				1
Sri Lanka	cash crops			1	
	tropical forests		2		
Taiwan	industrial development				1
Thailand	tourism				1
Vietnam	political conflict		1		
Total number of items mentioned		2	9	21	25
no coverage mentioned		8	3	2	1

limited range of popular books. (See references).

When it came to evaluating their teaching of South-East Asia, most of the respondents thought that they covered the region as adequately as they could given the constraints of resources and time. It was recognised that there is a tendency to teach issues and problems and that there is a need for more positive images to be projected and discussed with the children. There is a pressing need for more and better resources to provide enquiry materials that will encourage study of the changes that are currently taking place such as the impacts of imminent political change in Hong Kong; industrialisation in countries other than Japan; multicultural society in Malaysia; increasing tourism in certain countries. These are all topics that interest the teachers, but they feel that they are difficult to resource and will continue to be so unless they are built in as part of the National Curriculum.

Proposals for Geography in the National Curriculum

The Education Reform Act of 1988 established a National Curriculum for children aged 5 to 16 in schools in England and Wales. Geography is included as a Foundation Subject and a Working Group was set up on 5 May 1989 to prepare proposals for geography for the 5 to 16 age group. The Group published its Interim Report on 30 October and the final report is expected to be published in June 1990.

Since it was originally intended that children would be tested against attainment targets at the ages of 7, 11, 14 and 16, it was thought necessary by the Working Group to focus on the specification of attainment targets (ATs) and draft statements of attainment applicable to these four key stages. Eight ATs were proposed.

AT1 The Home Area and Region
AT2 The United Kingdom
AT3 World Geography: Part 1
AT4 World Geography: Part 2
AT5 Physical Geography
AT6 Human Geography
AT7 Environmental Geography
AT8 Geographical Skills

We analysed the Interim Report to ascertain what coverage of South-East Asia was being proposed. Four of the attainment targets (1,2,7,8) contain no mention of South-East Asia in the statements of attainment which are listed. These statements are related to ten levels of attainment and these levels are in turn related to the key stages for assessment. The lowest level mentioned is in AT 6, where at level 2 (age 6-7 years), children should know that people belong to different countries. Japan is mentioned in the list.

In AT 3, concerning "the economically developed areas ..., including those countries which are politically most powerful and those which are Britain's principal trading partners", there is a fairly thorough study of Japan, "...which is one of the world's most powerful economies...", beginning at level 4, that is for 10-11 year-olds and extending through to level 8 (GCSE years). AT 4, which "...covers a selection of regions and countries from the rest of the world...", includes the Indian Sub-continent and South-East Asia and coverage is introduced at level 4 with simple location knowledge. From level 5 to level 10, there is the opportunity to select Asian examples from lists, for example Bombay or Shanghai from a list of cities and Bangladesh from a list of countries for study. In AT 5, on physical geography, students at level 4 should know the location of the Himalayas, the Ganges and the Yangtze amongst mountain systems and rivers.

Our overall impression of coverage of Asia in general and South-East Asia in particular is in accord with that of Margaret Roberts (1990), who finds the selection of regional coverage in the Interim Report biased in favour of a British, rich, English speaking, white and temperate world. Like her, rather than having areas specified for study, we would prefer to see a framework for the selection of areas so that teachers can achieve a balance of areas studied between rich and poor, tropical and temperate and between different types of technologies and economies.

Conclusion : A Matter of Concern

Our researches have shown that it is likely that children in England and Wales will take away from their formal geography studies a minimal, partial, piecemeal and biased view of South- East Asia. There would seem to be little opportunity for the development of an overview of the region, its environments, cultures, achievements and potential. The tendency, as revealed by our research, is to select discrete examples, mainly from mainland Asia, in order to illustrate issues and problems such as natural hazards, population expansion and economic under-development. Japan is commonly employed as an example of rapid and successful economic development and the cultural and environmental problems that such development can bring. Far from helping to improve this situation, the new proposals for the National Curriculum in geography seem to exacerbate it.

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TEACHING ABOUT ASIA-PACIFIC IN SECONDARY SCHOOLS IN NIGERIA

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Abstract

Although geographical education in Nigeria, as in other countries, emphasizes study of the home region, the need to enhance international understanding, a feature which is articulated in the objectives of geographical education in Nigeria, necessitates teaching geography of other lands. This paper investigates the teaching of Asia-Pacific region in secondary school geography in Nigeria. Aspects of the teaching investigated were: curriculum organisation and content, teaching strategies and evaluation items. The findings showed that coverage of Asia-Pacific in evaluation items were substantial. On the other hand, the observed topical and systemmatic curriculum organisation, predominence of lecture method and overriding demand for recall of facts in evaluation were criticized as these approaches do not prepare the Nigerian child for effective living in his immediate and wider environment. The issued-based curriculum organisation with its characteristic pedagogical techniques was therefore recommended.

Introduction

The content of school geography in Nigeria before independence in 1960 and during the sixties was similar to school geography in British colonies such as the West Indies (Morrissey, 1989; Web, 1987) and adopted the Cambridge School Certificate syllabus which included Mapwork, General Geography and Regional Geography. The study of the whole world and the location of places, routes and products on blank maps of the world were the central questions for study.

From the sixties into the eighties, as colonies became sovereign nations and directed their education towards national needs geographical education became geared more towards local than world

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wide geography. Morrissey in supporting greater emphasis on the home region wrote:

> There was a time when children throughout the Carribean could name in order every "cape and bay" around the coast of "Great Britain" but could not name the rivers in their own islands. This should not be the case in the future as the effects of the reforms permeate the system.(Morrissey, 1987)

This statement is true for geography in Nigerian secondary schools. Geography teaching in Nigerian secondary schools from the seventies has become more inward looking by concentrating to a large degree on the home region. However, the Federal Government of Nigeria and Nigerian geographers, while emphasizing the need for learners to understand their immediate environment, appreciate that Nigerians are members of the world community. Hence the general objectives of geography teaching in schools include to:

- appreciate and develop a sense of responsibility towards one's own society and an intelligent interest in the formulation of national goals and policies, especially as they influence the resources and regions of the areas.
- develop sympathetic understanding of the people of other lands, based upon the recognition that they may have different assemblies of resources, different goals and different problems from the people of their home area.
- organise and formulate principles according to acquired geographic concepts, which they can use to analyse and interpret spatial problems in their immediate and wider environments ... (Federal Ministry of Education, 1985, V-VI)

These objectives indicate that geographical studies in Nigeria emphasize: issues of other lands; and the understanding that the lives of Nigerians are directly or indirectly affected by the lives of people from other places. There are two major reasons for Nigerian youth to study the Asia-Pacific region. Firstly, Nigeria has many economic links with countries in this region. Examples of such ties which appear in Nigerian newspapers are: "Businessmen want trade imbalance with Japan corrected" (Ogundele, Oct 28 1989, 3); "Outgoing Indian envoy reflects on ties with Nigeria" (Omowomi, Oct 28 1989, 4); and "Export Import Eqnuires: Onions, pumpkins wanted in Taiwan, Japan" (Tabuayunu, February 26 1990, 1). Secondly, Nigeria as a developing nation could learn from the development strategies of Asian countries such as China, India, Malaysia, Japan, Taiwan and even Pakistan. For example, "Trading with Malaysia" (South, April 1987) shows the similarity of socio-economic problems in Asia-Pacific and Nigeria. This article discusses strategies which Malaysia, as an oil producing country, is adopting to sustain her export and foreign exchange earning during recession in world oil price. Nigeria faces a similar problem.

Given the need for Nigerian children to learn about other countries, including Asia-Pacific region, two vital issues are arise: What are the Nigerian children taught about Asia-Pacific Geography? How are they taught? The process of acquisition of knowledge is as important as the knowledge itself. It makes learning realistic and knowledge is used to prepare learners for living. These two questions raised will be examined using data collected from curriculum materials and teachers of geography in Nigeria.

Teaching About Asia-Pacific

Content While there is no regional study of Asia-Pacific in geography curriculum, topics from the region occur within Physical Geography, and World Human geography. Table 1 shows the content taught under various themes and some of the key ideas taught by five geography teachers.

Themes	Ideas Taught (Content)
Landform features	Deccan plateau (intemontane plateau), the Himalayas (fold mountain).
Natural hazards	Earthquake - Circum-Pacific ring as an area of great intensity of earthquake. Vulcanicity - example of crater lake (Lake Toba in Sumatra-Indonesia). Flooding, example of flood plain (Hwang Ho River in China).
Major - Climatic Types	The Tropical Monsoon - location, characteristics and activities.
Soil	Chernozem (black earth) in drier parts of cool temperate interior of Ukranie and Steppe belt of Asia.
Settlement	Village rural settlement (nucleated or linear); Lowland of Asia, (Java and China); Settlement at River Confluence (Yangtse Kiang in China, Gombak in Kualar Lumper and Klay in Malaysia.)
World Population	Examples of very densely populated regions (a) Agricultural Monsoon Asia - China, India, Bangladesh, Sri Lanka, Indonesia (Alluvial soils of Hwang Ho; Rich volcanic soils of Java) (b) Industrial Japan.
World Trade	Trade between Nigeria and the outside world - Imporatation of manufactured goods, Eg: electronics from Japan, and Hong Kong.

Table 1. Content of Asia-Pacific Covered in Secondary School Geography in Nigeria

Teaching Strategies The strategies for teaching Asia-Pacific region are similar to those which are utilized in geographical teaching in Nigeria secondary schools. These methods are essentially exposition, dictation of notes and note copying (Okpala, 1987). Recent research (Alaba et al, 1988; Egwu et al, 1989) has shown that even in teaching the new curriculum which emphasizes inquiry learning and problem solving, the status quo is still maintained. This situation is confirmed by the evaluation items which predominantly test knowledge of facts. This indicates the low level of conceptualisation (basically factual) which is emphasized in the teaching.

Evaluation Consideration of the number and type of questions on Asia-Pacific in school certificate geography examinations in Nigeria is important because demands of external examinations define the hidden curriculum. Such demands have been found to determine to a large extent what is taught and how it is taught in schools (Morris, 1972; Lewy, 1977).

Since 1988, there has been two school certificate examinations in Nigeria: the School Certificate (SC)/General Certificate of Education (GCE), and the Senior Secondary Certificate Examination (SSCE). The former examines the 5 year secondary education and the later the second tier of the 3-3 (3 years Junior and 3 years Senior Secondary Education). The five-year secondary programme is to be phased out by the end of 1990. Both examinations are organised by the same body, the West African Examinations Council (WAEC) and consist of two papers of objective and essay question types. The questions types and the sections are specified below.

SC/GCE:

Paper I:	Part I	Objective items with 15 on Mapwork.
	Part II	General Geography - Section A, Mapwork; B, Element of Physical Geography; C, Elements of world Human Geography.
Paper II:		Regional Geography - Section A Home country; B, West Africa,; C, The Rest of Africa.

S.S.C.E.:

Paper I:	General Geography-Section A, objective items with 10 on map reading and interpretation; B, map reading and interpretation; C, elements of physical geography.
Paper II:	Human and regional Geography - Section A, human geography; B, Nigeria; C, West Africa and Africa.

In each examination, the number of questions specifically on Asia-Pacific within General, Physical and World Human geography are shown in Table 2 indicating 12.1% and 12.8% of the questions on Objectives and Essay types respectively focussed on Asia-Pacific.

Examination	Date	Objective Questions			Essay Questions		
		Total	No. of Asia-Pacific	%	Total	No. of Asia-Pacific	%
SC/GCE	June 1988	45	4	8.9	6	0	0
SSCE	June 1988	40	4	10.0	6	1	16.7
SC/GCE	Nov. 1989	45	8	17.8	8	0	0
SC/GCE	Nov. 1989	45	8	17.8	8	2	25.0
SSCE	Nov. 1989	40	2	5.0	11	2	14.3
Total		215	26	12.1	39	5	12.8

Table 2: Number of Questions Asked on Asia-Pacific In 1988 & 89 SC/GCE and SSCE Geography

Thought Processes Involved in the Questions

This purpose of ascertaining the thought processes involved in the questions was to infer the extent to which studying this region would train learners for critical thinking as a preparation for living.

There were 26 objective test items and 5 essay questions involving Asia-Pacific in 5 SC/GCE and SSCE in 1988 and 1989. These questions were classified according to the thought processes involved. The criterion used was the six levels of Bloom's categorization of cognitive objectives. (Knowledge, Comprehension, Application, Analysis, Synthesis and Evaluation). In the present analysis, the four highest levels (Application, Analysis, synthesis and Evaluation) being all concerned with mmanipulation of knowledge have been contracted into one level - High Order Thinking. The questions were therefore classified under Knowledge, Comprehension and High Order Thinking.

Knowledge questions were those that involved mere recall of facts and principles. Comprehension questions required interpretation of information, translation or change from one form to the other, as well as extrapolation based on mere observation rather than application of certain laws and principles. High Order Thinking questions involve the application of principles, methods and theories in problem solving as well as decision making.

The number of questions asked under the different categories of thinking are shown in Table 3. Clearly, questions of knowledge level predominate and a few typical question samples are show below.

Examination	Date	Questions on Different thinking levels							
		Objective items				Essay			
		K	C	HOT	TOTAL	K	C	HOT	TOTAL
SC/GCE	June 1988	4	1	-	5	-	-	-	0
SSCE	June 1988	4	-	-	4	1	-	-	1
SC/GCE	June 1989	8	-	-	8	-	-	-	0
SC/GCE	Nov. 1989	6	-	2	8	2	-	-	2
SSCE	Nov. 1989	2	-	-	2	2	-	-	2
Total		24 (92.3%)	-	2 (7.7%)	26 (100%)	5 (100%)	-	-	5 (100%)

Table 3. Number of Questions on Different Thinking Levels

K - Knowledge questions; C, Comprehension; HOT, High Other Thinking Questions.

The tropical monsoon region of South - East Asia is best known for the production of

A. apples
B. wet rice (K)
C. sugar beet
D. sisal hemp
E. dry tobacco

The World's largest ship builder is

A. France
B. Western Germany
C. Britain (K)
D. Japan SC/GCE June 1989.
E. U.S.A.

The traveller who leaves ASIA at mid-night on Friday across the International Date Line arrives in America at

A. Mid-night on Thursday
B. Mid-day on Thursday
C. Mid-night on Friday (HOT)
D. Mid-night on Saturday
E. Mid-day on Sunday

Discussion

The previous descriptions of content, evaluation and teaching strategies of the Asia-Pacific in secondary school in Nigeria show that

1. despite the emphasis on local geography, the Asia-Pacific region is still being taught within General Geography in Nigerian Secondary Schools;
2. in every school certificate examination, an attempt is made to ask some questions on the Asia-Pacific. This ensures coverage of this region in the teaching.
3. the organisational structure of the content is Topic and Systemmatic;
4. the teaching strategies involved are predominantly expository and copying of notes;
5. the evaluation items on the region emphasize recall of facts.

Information elicited on the teaching of Asia-Pacific shows that some attention is given to the region in study of world geography in secondary schools in Nigeria (see Tables 2 and 3). Considering that Asia-Pacific is only one out of numerous world regions which the Nigerian child is expected to be informed about, it could be argued that attention given to the Pacific region in terms of coverage is quite substantial.

It may be regarded as coincidence that such a substantial coverage is given to this region in general geography as this region contains various geographical phenomena which are included in the curriculum. Examples are population, industrialisation and climatic types. Judging on the question coverage, one would argue that learning about the Asia-Pacific by Nigerian secondary students, is sufficient. But, as geography educators, a vital question which should arise is "What is the essence of studying this region?" Geographers and geographical associations (Federal Ministry of Education, 1985; Bailey and Binns 1987; Australian Geography Teachers' Association, 1988) agree that the essence of geographical knowledge lies in its utility, preparation for living in the immediate and wider environment, and in solving environmental problems.

To achieve these purposes, geography should not be learnt as an end in itself. Rather, students should learn through geography as a means. This idea draws attention from just mere accumulation of factual information about Asia-Pacific to the assimilation of knowledge of the region, inculcation of attitudes and the development of skills for future use. The situation in secondary schools in Nigeria reflects the former but not the latter.

Learning through geography (Slater, 1982) is the basis for geographical education as it emphasizes the processes which determine the extent to which knowledge, attitudes and skills can be internalized for effective utilization. It is doubtful whether fact loaded curricula, and questions and teaching strategies which emphasize memorization and regurgitation of facts have much to offer to Nigerian youth in terms of preparation for living. Suggestions are now made for effective teaching of Asia-Pacific in geography in secondary schools in Nigeria.

Suggestions

Slater (1982) in discussing the idea of learning through geography emphasized that such learning should lead to meaning-making as it develops personal meaning and understanding which gives opportunity for personal knowledge and experience. To facilitate such learning, there is need to reorganise the curriculum which reflects issues and encourages involvement of pupils. Such learning is futuristic oriented as relevant information of the past and present are utilized in planning for now and future. Hence, instead of asking "what is the situation in Asia-Pacific?", other more relevant questions, such as: What are the circumstances? What changes have taken place and why? What are the plans for the future? Are there lessons to learn from this issue for development in my country? ..... etc. should be raised. It is certain that this type of probing questions has no place in the Topical and Systemmatic framework within which geography curriculum is organised for secondary schools in Nigeria. The author therefore recommends issue-based/thematic approach.

In this approach, issues rather than topics form the themes in the curriculum framework. A possible issue-based theme and its sub-units through which geography of other lands including Asia-Pacific could be learnt in secondary schools in Nigeria is given below:

Theme: Devising alternative strategies for tackling problems of economic development.

Sub-units:
(a) Problems of Agricultural development
(b) Problems of industrial development
(c) Problems of communication
(d) Problems of political instability
(e) Problems of population
(f) Problems of National Planning and Priorities
(g) Social problems.

This framework would lead to an integrated wholistic learning. Geographical ideas on climate, vegetation, politics, population, agriculture, planning and industry of Asia-Pacific would be learnt within a well defined problem-based situation : Problem of Economic Development. The issue-based approach directs learning towards a well defined goal hence application of knowledge is clearly directed towards national and international development.

The issue-based thematic framework would involve case studies in order to probe deeply and analyse intensively the multifarious phenomena. Such deep probing leads to wholistic understanding, generalisation and application. Examples of units which could be utilized as case studies on Asia-Pacific in secondary schools in Nigeria are given below.

e.g. Theme: Devising alternative strategies for solving problems of Economic development.
Sub-Unit:Problem of Agricultural development
Resource Material: "China can self-sufficiency be achieved?" (Pask, 1986)

This case study is relevant to Nigeria as agriculture is the bedrock of Nigerian economy but was ignored because of the oil boom. Nigeria is now facing serious economic problems and hence the introduction of Structural Adjustment Programme. This highly integrated unit treats Chinese agriculture in its ramifications (historical, political, social, economic, physical), and Pask discussed Chinese agriculture under the following headings - The importance of agricultural sector; How to provide enough food for over 1000 million people?; Why not import grain?; The organisation of farming land and people - which way is the best?; Improving farming technology - what are the priorities?; How much progress has Chinese agriculture made?; Barriers in path to self-sufficiency? (Pask, 1989).

By using this approach, geography of China which was once haphazardly taught in secondary schools in Nigeria under climate regions, population and natural hazards will be presented in a more meaningful integrated and unified framework.

An other case study suitable for teaching Asia-Pacific in Nigeria is "Environmental conflicts in Japan: production versus people" (McDonald 1986) which discusses environmental hazards and conflicts in industrialized Japan. Handling this issue under "Problems of Industrial Development" would enable the Nigerian child to perceive industrialization from all its ramifications.

Concerning the strategies involved in this issue-based approach, there is a move from traditional exposition towards pupil-inquiry as students would be involved in discussion, games and simulation, and work on statistical and literary information provided. As teaching approach in geography is changed towards issue-based, the evaluation strategy would have to change as well. Pupils should no longer be required to write short notes on "ship building in Japan". Rather questions should demand discussion of issues and solution. An example of such issue-based evaluation item is given below.

(a) Industrialization can lead to improvement as well as destruction of a nation. Support the statement above with two examples on each side (Use examples from Europe, America and Asia.)

(b) Suggest two precautions to Nigeria in its move towards industrialization. Use two specific examples to support your suggestion.

Conclusion

Study of other regions is essential in geographical education as it exposes the learner to experiences that would be useful in enriching his thoughts and in reconstructing his perception towards international understanding. In this paper the Nigerian experience is used to show that lofty goals of geographical education, prescribed by many current curricula, cannot be achieved through topical, systemmatic, or regional framework. Such framework predominantly uses expository methods in teaching and emphasizes memorization of facts in evaluation of learning outcome. The author recommends issue-based curriculum framework which uses case studies as exemplar. Issue-based approach is integrative, futuristic and problem solving oriented and hence would facilitate meaningful learning of geography of other regions of the world as a preparation for effective living in the immediate and wider environment. This approach is therefore recommended for use in other countries who are still operating non-issue-based curriculum framework. This is essential because geographical education in all countries has a common goal of teaching geography for a Better World.

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THE CONTRIBUTION OF GEOGRAPHY TO THE STUDY OF THE ASIA-PACIFIC REGION IN NEW SOUTH WALES SCHOOLS

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Abstract

This paper analyses the contribution of geography to the study of the Asia-Pacific region in New South Wales schools. Although the paper addresses the Asia-Pacific in its widest context, the Asian aspect is emphasised because of recent calls for increased awareness by Australian students, and citizens generally, of the Asian region and its people. Current syllabuses are analysed for their contribution, and potential contribution, to the study of Asia in secondary schools. Throughout the paper the terms 'Asia and Asian region' are used in the widest sense to denote countries of the Asia-Pacific region that form a geographical focus as Australia's neighbours.

Introduction

Recent years has seen increasing calls for greater awareness on the part of Australians of our Asia-Pacific neighbours. The Asian Studies Council (1988) in its National Strategy for the Study of Asia in Australia set out detailed objectives and a strategy for increasing our understanding of Asian societies and languages. Professor Ross Garnaut (1989) submitted a major report, Australia and the Northeast Asian Ascendency, after being commissioned by the Federal Government to investigate and recommend on all facets of Australia's relations with, and awareness of, the Asian region. Both reports focus significantly on the role of the education system in increasing Australians' awareness and understanding of Asian affairs. They set out short term and long term goals for increasing the study of Asia at all levels of primary, secondary and tertiary education.

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The Federal Minister for Employment, Education and Training, Mr. John Dawkins, in a speech to Chief Executive Officers of Tertiary Institutions in November 1989 (Dawkins, Media Release, 1989), outlined the Government's commitment to the continued development and expansion of Asian Studies in Australian schools and higher education institutions, involving significant increases in funding levels over the next five years. Similarly in New South Wales, the Minister for Education and Youth Affairs, Dr. Terry Metherell (1989), in the recently released White Paper on education in that State, recommends increased opportunities for the study of Asian affairs including Asian languages. These calls reflect an increasing recognition of how closely Australia is linked geographically to the Asian region through such things as trade, tourism and investment. At the same time, however, it is acknowledged that there is a relatively low level of understanding of the Asian environment by both the broader community and within the school system (Garnaut, 1989; Brooks and Codrington, 1989). The Garnaut Report specifically recommends that all students be exposed at some stage of their school life to "serious" study of Asian history, geography, economics,, politics and culture, along with increased opportunities for the study of Asian languages. Similarly, the Asian Studies Council report calls for all Australian school leavers to have an understanding of Asian cultures, geography and economics by the year 2000; the same understanding for the bulk of Australians by 2010; and the study of an Asian language to be normal by 2000.

To achieve the laudable aims of these reports may involve significant new initiatives in curriculum development and teacher education, supported by appropriate funding. On the other hand it is important to understand that the study of Asia and the Pacific has not been ignored in New South Wales schools. Many opportunities exist through a range of elective courses in Geography, History, Economics, Asian Social Studies, and Society and Culture amongst others, for the study of Asian society and culture. Limited opportunity also exists for the study of Asian languages. This paper specifically examines the contribution of geography to the study of Asia in the light of the recommendations referred to above in the two reports that address the issue of Asian awareness. In so doing it will examine the syllabuses operating at both the junior (Year 7-10) and senior (Year 11 and 12) high school levels in New South Wales schools for their contribution, and potential contribution, to the study of Asia.

Geography Syllabuses in Context

In the junior years of high school, whilst not a compulsory subject, geography is a popular elective that a majority of students have at least some exposure to. In the proposed re-organisation of the curriculum in the junior school (Metherell, 1989), geography will be compulsory for a minimum of one year and available as an elective over four years. At a minimum level this will see a greater exposure of all students to geography. More significantly the report indicates that the core curriculum studies in geography (and history) will have a particular focus on Asia and Australia (Metherell 1989: 38, Recommendation 37).

In the senior school, geography is a popular elective attracting around 20% of the total Higher School Certificate candidature. It is a matriculation subject offered at both 2-unit (normal course) and 3-unit (additional, extension course) levels.

The Junior Syllabus and Asian Studies

The School Certificate Syllabus in Geography issued by the Secondary Schools Board (1984) sets geography as a study to develop in students an overall view of the world. The syllabus is built around eight aims, two of which are related to the acquisition of geographic skills and field work activities. The other six, listed below, provide the basis around which content coverage is developed.

1. To enable students to understand spatial patterns and the processes contributing to them.

2. To increase students' understanding of the world in which they live through the study of a variety of communities and environments.

3. To assist students in their comprehension of contemporary issues and world affairs.

4. To develop in student a sense of national and cultural identity through a knowledge and understanding of Australian geography.

5. To contribute to the investigation and development of students' values concerning people and their actions in relation to each other and their environment.

6. To extend students' knowledge of ways of coping with changing environments. (Secondary Schools Board, 1984, 8-9)

These aims allow for specific Asian communities (and others) to be used as examples. Aim 4, although concerned with developing a knowledge and understanding of Australian geography, specifically requires a knowledge of the relationship with our neighbouring nations of the Asia-Pacific rim. A number of the other aims also lend themselves to the significant selection of Asian examples. The study of a variety of communities and environments (Aim 2) and the study of contemporary issues and world affairs (Aim 3) are good examples. Whilst the syllabus is not generally prescriptive in the selection of content, most school-based course, in order to achieve the syllabus aims, will select a reasonable range of Asian examples for study. Students will typically study types of farming, forest environments, urban and village settlements, and a range of countries studied. Links with Australia through trade, aid, immigration and tourism are also likely to be studied. The likelihood of studying Asian and Pacific examples is reinforced by the range of such material covered in the most common textbooks used in schools to support the course (for example, Codrington and Codrington, 1982; Sale and Wilson, 1983).

An interesting feature of this syllabus is the emphasis it places on the development of values including appreciation for , and empathy with, other cultures and lifestyles. Asian communities are most typically used in developing this aspect. Newer text-book material often involves activities to help students clarify their understanding of the values underlying different communities and their own perceptions of other societies (for example, Slater, 1986).

The Senior Syllabus and Asian Studies

The Geography Syllabus, Years 11-12, published by the Board of Secondary Education (1987) and introduced into Year 11 in 1988 and Year 12 in 1989 has two lobes in the Year 12 course, following the detailed study of Australia in Year 11. Students elect to study one of the lobes in Year 12 for examination at the Higher School Certificate. The first, Global Environments, adopts a thematic approach focussed at the world scale, and allows for significant studies from the Asian world to develop the themes being studied. The second, Australia's Neighbours, also adopts a thematic approach, but one based on the area being studied, namely, the Asia-Pacific region. Each of these lobes will be examined for their contribution to the study of Asia.

Global Environments Lobe The topics covered in the Global Environments Lobe are set out in Figure 1. All topics within the course require sample studies at local and global levels. Many opportunities exist for the selection of Asian examples. For example, within the Settlement and Livelihood topic, third world urbanisation is a specific theme and the opportunity also exists for the study of an Asian city. The option topics Food and Agriculture, and Manufacturing and Technological Change require a global focus taking in significant examples from the Asian region. In the 3 unit course the options World Economic Development and the Fragile Planet lend themselves obviously to the selection of appropriate examples from Asia and/or the Pacific.

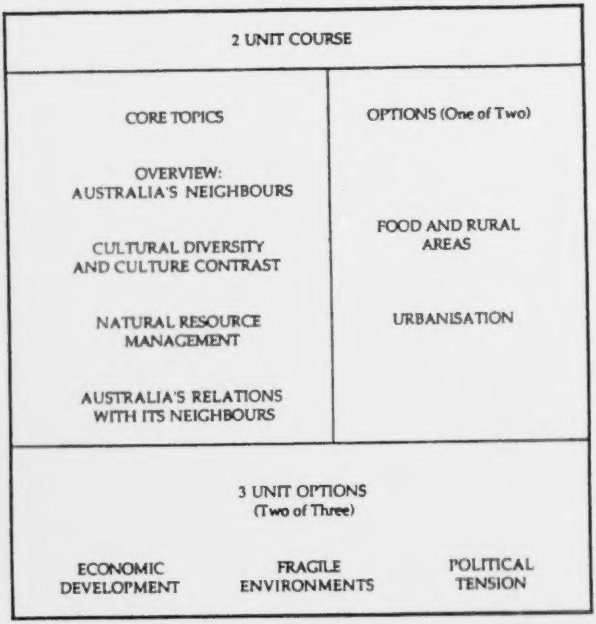
<table>
<tr><td colspan="6">2 UNIT COURSE</td></tr>
<tr><td colspan="3">CORE TOPICS
THE USE AND MISUSE OF NATURAL RESOURCES
SETTLEMENT AND LIVELIHOOD</td><td colspan="3">OPTIONS (One of Two)
FOOD AND AGRICULTURE
MANUFACTURING AND TECHNOLOGICAL CHANGE</td></tr>
<tr><td colspan="6">3 UNIT OPTIONS (Two of Three)</td></tr>
<tr><td colspan="2">WORLD ECONOMIC DEVELOPMENT</td><td colspan="2">THE FRAGILE PLANET</td><td colspan="2">WORLD POWER IN A NUCLEAR AGE</td></tr>
</table>

(Board of Secondary Education, 1987:19)

Figure 1 Global Environments Lobe

Australia's Neighbours Lobe The Australia's Neighbours Lobe takes a thematic approach based on the area under investigation. The area to be studied encompasses Southeast Asia, East Asia, South Asia and the Southwest Pacific. The topics covered are set out in Figure 2.

Clearly this lobe allows for the most comprehensive and focussed study of the Asia-Pacific region within the study of geography in New South Wales. It is designed to comprehensively study the region in terms of such things as biophysical and human resources; the cultural diversity of the region; contemporary trends and problems related to food production, urbanisation, resource utilisation and management; economic development within the region; and, Australia's relationships with its Asia-Pacific Neighbours.


2 UNIT COURSE
CORE TOPICS
OVERVIEW: AUSTRALIA'S NEIGHBOURS
CULTURAL DIVERSITY AND CULTURE CONTRAST
NATURAL RESOURCE MANAGEMENT
AUSTRALIA'S RELATIONS WITH ITS NEIGHBOURS
OPTIONS (One of Two)
FOOD AND RURAL AREAS
URBANISATION
3 UNIT OPTIONS (Two of Three)
ECONOMIC DEVELOPMENT
FRAGILE ENVIRONMENTS
POLITICAL TENSION

(Board of Secondary Education, 1987:35)

Figure 2 Australia's Neighbours Lobes

Discussion

The above analysis of geography syllabuses in New South Wales indicates the many possibilities that exist for the study of Asia in particular, and theAsia-Pacific region as a whole. Geography, with its emphasis on the integration of physical and human factors, is an ideal subject to encourage a holistic approach to the study of the Asian region. Many of the calls for increased study and awareness of Asia can be met through existing geography courses. By careful programming of case studies the range of material covered relating to Asia can also be increased. Whilst such an approach by no means negates the development of specialist Asian studies, it does suggest the significant contribution geography can and does make within the existing core curriculum in New South Wales. Similarly, whilst the Australia's Neighbours lobe in the senior course provides the most comprehensive study of Asia, ample opportunity exists within the other lobe, and in the junior geography syllabus, to focus a significant number of examples and case studies on the Asian region. Careful programming can ensure a comprehensive treatment of the Asian region within a wider world context. Certainly the courses are well placed to meet many of the needs called for by the Asian Studies Council in its National Strategy related to the study of Asia.

Conclusion

This paper has attempted to analyse the contribution of geography syllabuses to the study of the Asia- Pacific region in New South Wales schools. The analysis has found one course in the senior school that is specifically focussed on Australia's AsiaPacific neighbours and another that allows significant examples to be drawn from the Asian region. Similarly, the junior syllabus allows for significant coverage of Asian geography. The key to the extent of the coverage lies in careful programming. Finally, the analysis has shown that geography is extremely well-placed, as a subject within the core curriculum, to go on making a significant contribution to students' awareness of our Asian and Pacific neighbours.

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THE ASIAN PACIFIC WORLD IN DUTCH GEOGRAPHY TEACHING

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Abstract

The presentation will sketch the position on the Asian Pacific World (APW) in the Dutch geography curriculum. With three points at different levels its position might be qualified as reasonable although very essential. As a colonial heritage Indonesia persists in the geography syllabuses at all O- and A- level geography examinations in non-vocational secondary education. Simultaneously this part of the APW represents the tropical and the third world in the formal curriculum for geography. The APW contributes compulsory topics as well as alternative and optional elements.

A quantitative analysis shows the relative position of this region among other examination topics. In a qualitative sense the national examination system is criticized for the way it influences the content and depth of geographical analysis of this region. This will be illustrated by means of the most recent examination tasks for 1990.

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Perceptions of the Asian Pacific Region in Teaching

INTERNATIONAL TOURISM TO THE PACIFIC RIM

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Abstract

Over the past decade most Pacific Rim countries have seen economic growth as a result of rapid development processes in telecommunications, transportation, and tourism. This paper focuses on the latter, in particular on international tourism to the Pacific Rim. It will be argued here that the Pacific Rim has evolved as a major tourist destination area that captures a sizable and increasing segment of the international travel market.

Some of the implications of rapid tourism growth will be discussed in the case of the People's Republic of China, a country which has experienced dramatic increases in tourism in the 1980s: from 4.2 million visitor arrivals in 1979 to 31.5 million in 1988. Tourism has become a major revenue source for the country which offers a variety of cultural attractions and natural resources for recreation. The larger number of visitors to China has also resulted in capacity and environmental problems as will be shown for Shanghai, Hangzhou and Suzhou.

In the final part of the paper cartographic approaches and methods will be discussed which are able to demonstrate the gradually rising importance of the Pacific Rim in world tourism. It will be suggested that the cartogram may serve as one useful tool in displaying the gains and the changing proportional shares. Moreover, the issue of cartographic ethnocentricity will be raised and a series of cartograms introduced which shift the center of the world to the Pacific Rim.

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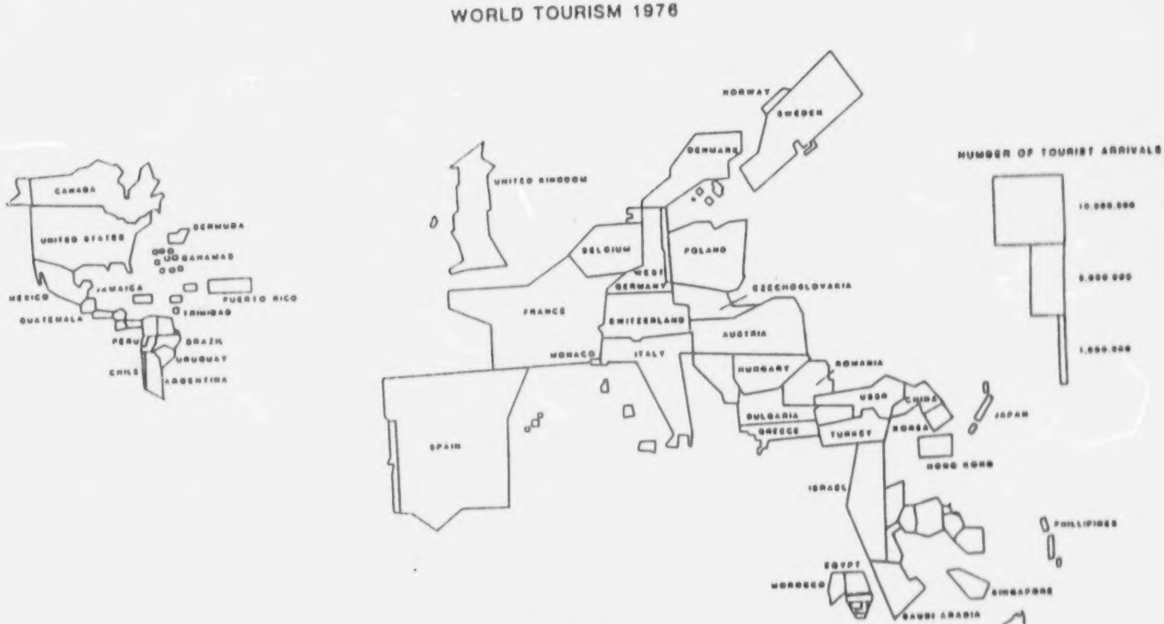
WORLD TOURISM 1976
CANADA
UNITED STATES
BERMUDA
BAHAMAS
MEXICO
JAMAICA
PUERTO RICO
GUATEMALA
TRINIDAD
PERU
BRAZIL
URUGUAY
CHILE
ARGENTINA
NORWAY
SWEDEN
DENMARK
UNITED KINGDOM
BELGIUM
POLAND
WEST GERMANY
CZECHOSLOVAKIA
FRANCE
SWITZERLAND
AUSTRIA
MONACO
ITALY
HUNGARY
ROMANIA
SPAIN
USSR
CHINA
JAPAN
BULGARIA
GREECE
TURKEY
KOREA
HONG KONG
ISRAEL
PHILLIPINES
EGYPT
MOROCCO
SINGAPORE
SAUDI ARABIA
AUSTRALIA
NUMBER OF TOURIST ARRIVALS
10,000,000
5,000,000
1,000,000

Figure 1 Traditional World Map

Figure 2

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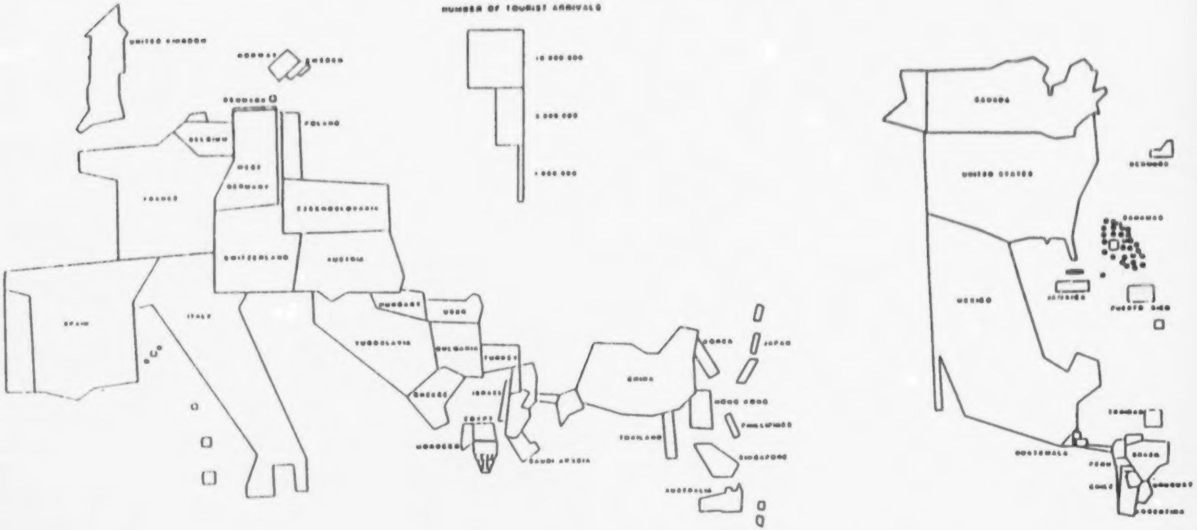
WORLD TOURISM 1986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POLAND
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SPAIN
ITALY
HUNGARY
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YUGOSLAVIA
BULGARIA
TURKEY
GREECE
ISRAEL
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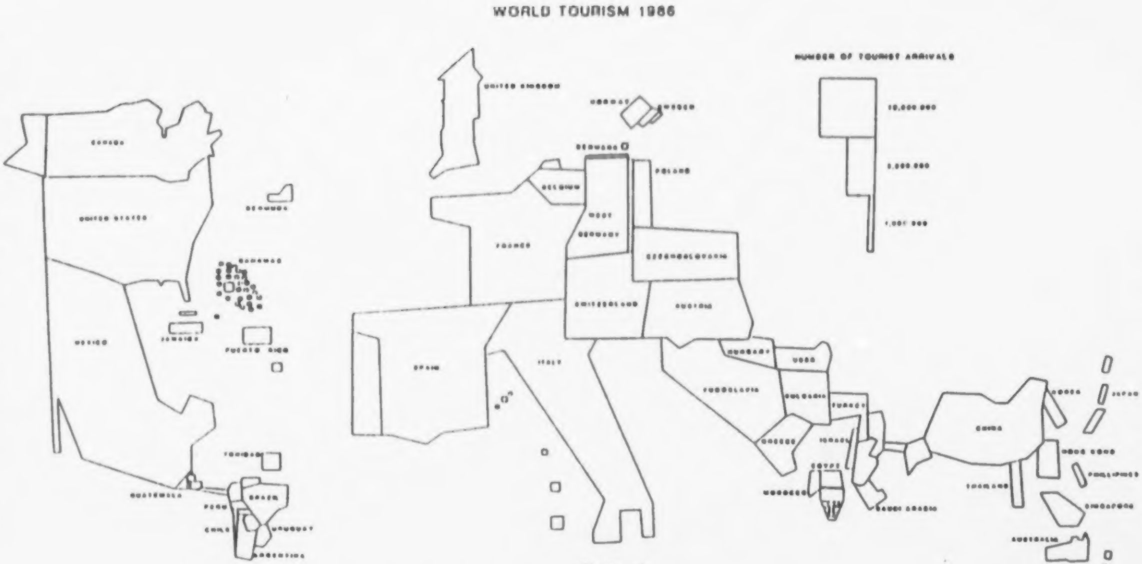
WORLD TOURISM 1986
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5,000,000
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JAMAICA
PUERTO RICO
TOBAGO
GUATEMALA
BRAZIL
PERU
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URUGUAY
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MOROCCO
SAUDI ARABIA
CHINA
KOREA
JAPAN
HONG KONG
PHILIPPINES
THAILAND
SINGAPORE
AUSTRALIA

Figure 3 World map showing Pacific Rim at center

NATIONAL IDENTITY AND INTERNATIONAL UNDERSTANDING

Hartwig Haubrich
FR Germany

Absract

The paper contains a quantitative and qualitative text analysis of essays of 15 year old students from 28 countries from all over the world, three of which are from Asia Pacific. The author selected 51 content categories which he inductively defined and used together with intensity levels, connectivity factors and values to describe the different profiles of the cognitive and affective structures of the students' national identity. The main result shows that the students displayed very good psychological preconditions to engender national identity and international understanding through peace education for a better future.

Introduction

For the last few years I have travelled through many countries and met many geographic educators. These colleagues helped me to ask 15 year olds to write an essay with the title "How I see my country". I received reports from 28 countries and published them as reading material (Haubrich, 1988).The main function of this publication was to give the Youth of the world the opportunity to become informed about different countries not only from adult textbook authors but also from the youngsters who lived in those countries. Students should write for students in the world in order to develop a better understanding between the different nations in our world.

The second function of the 1988 project was to analyse how these young students perceived their countries, i.e.

- which subject areas they selected and wrote about;
- which ideas, feelings, fears and hopes they expressed;
- which values they preferred and stressed;
- what sort of identification they exhibited with their own country;
- what biases and stereotypes did they have or needed to avoid.

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Because of the few students the outcomes cannot be fully representative. But this pilot study can give some ideas for more research in the field of international understanding.

Methodology

Content Analysis: The first step, in analysing the cognitive structure students use to describe their countries, was to find the main subject areas, or content categories, they reported. Therefore the author read the essays many times, and selected topics and subtopics which were then coded according to the following inductively devised categories given in figure 1.

Intensity Analysis: The second step was toscore the different subject areas according to the intensity they were described. Dependent on the quantity and quality, categories received scores from 1 (lowest) to 5 (highest).

Value Analysis: The third step was to look
for the "values", i.e. how the young students see their topics - positively (1), neutrally (2) or negatively (3).

Connectivity Analysis: Very often one paragraph was dominated by one category but this was also connected with others - for example vegetation as main category was at times related to climate, landform, soil and situation.

Data Processing: Once coded, the data were entered for computer processing using the program DATA-Entry and analysed by the SPSS-X package. The outcomes of this is represented by two diagrams for each essay expressing content and value, and an overview diagram of the cognitive and affective structure of all students' perceptions. These diagrams provided the basis for the interpretation of the results.

The Cognitive and Affective Structure

Because of the limited space the following section shows only a selection of categories and how they were encoded. Those selected include examples from Asian children; others are given in Appendix 1.

10 nature
11 situation
12 size
13 vegetation
14 animals
15 climate
16 soil
17 raw material
18 landforms

19 water resources

20 economy
21 foreign trade
22 industry
23 agriculture
24 mining
25 services
26 development
27 technology
28 transport

30 culture
31 language
32 architecture
33 tourism
34 attractions

40 population
41 society
42 clothes
43 food
44 leisure
45 living standard
46 education
47 capital
48 home community
49 home country

50 social environment
51 settlement
52 mobility
53 history
54 inventions
55 religion
56 urbanisation

60 politics
61 military
62 war
63 int.understanding

70 values/attitudes
71 identity
72 int.cooperation
73 peace
74 image
75 human rights
76 future

Figure 1 List of content categories

Category 10 nature:

"The high level of industrialization and the high living standard have their price. Our forests which are so characteristic of our country are becoming more and more ill. We speak about our dying forests. In most rivers we cannot swim because of their pollution. In some industrial areas the air is poisoned during bad weather conditions. And there are other problems against which we have to fight and are fighting."
(Bastian Hilger/FR Germany p.41)
This quotation illustrates the category "nature" with an intensity level of 4, a negative valuation and connectivity with "living standard", "industry" and "climate".

Category 14 animals:

"Australia's animals and birds are fairly well known around the world. The best known ones include the koala and the kangaroo. Other Australian wildlife includes the brown snake, lizards like the frilled lizard and the gecko. Kookaburras, cockatoos, parrots, peacocks and galahs are common in this country. Some Australian animals are in danger of becoming extinct. These include the Tasmanian tiger, the bilby and the hairy-nosed wombat. As well, animals such as the koala are being given to overseas zoos."
(Andrew Gerber/Australia p.9)
This paragraph was encoded as "animals". It was given intensity level 5, a negative valuation and connectivity with "international cooperation".

Category 20 economy:

"Korea today is ranked as a newly industrializing country with a potential to join the ranks of the developed economies in the not so distant future. Korea has accomplished a successful economic development through series of Five-Year Economic Development Plans first implemented in 1962. The annual rate of economic growth during the period from 1962 to 1981 was 8.41 %. Korea's Gross National Product (GNP) per head increased from 87 US dollars in 1962 to 1.998 US dollars in 1984."
(Kim, Sang-Hyun/Korea p.95)
This quotation was encoded as "economy", with an intensity level of 4, a positive valuation and connectivity with "industry", "living standard" and "international cooperation".

Category 21 foreign trade:

"Among the well-developed industries are garments, electronics, toys, clocks and watches. The exports of these industries are

ranked very highly in the world. Hong Kong even produces electronic parts for the space shuttle."
(Kwan Yu Bun/Hong Kong p.53)
This code is for the content "foreign trade" and has an intensity of 5, the position valuation and connectivity with "industry".

Category 23 agriculture:

"Even today, facing natural hazards, the farmers in Bangladesh manage to grow nearly two million tonnes of food every Year, in an area measuring only 54 thousand square miles. The country receives a lot of aid from outside. Many factories producing jute, of which Bangladesh is the world's second largest producer, have been established. The production of tobacco, another one of the cash crops of Bangladesh has been advanced. A large quantity of pulses, sugar cane, various seasonal fruits and vegetables is also grown in the country. The economy of Bangladesh mostly depends on agriculture. Despite of all the agricultural developments Bangladesh remains a land of green, struggling for survival."
(Sabina Islam/Bangladesh p.12)
This is an example 01 the content category "agriculture" with an intensity level of 4, a positive valuation and connectivity with "nature", "food", "vegetation", "economy" and "living standard".

Category 43 food:

"Rice, either plain or cooked with other grains, is the main dish at all Korean meals. Rice is accompanied by a variety of side-dishes. Favourite side-dishes include bean-paste soup, pickled cabbage called "kimchi", roasted beef and fish and steamed and seasoned vegetables. Soy sauce, soybean paste, red pepper paste, ginger root, sesame oil and sesame seeds are other seasonings, which are essential to Korean food."
(Kim, Sang-Hyun/Korea p.97)
This quotation illustrates the category "food" and has an intensity level of 4, a neutral valuation and connectivity with "vegetation".

Category 62 war:

"My hometown Hikari, which has 50 thousand people, had a base of the Japan navy during the war. Many students, who had to work for the war, were killed by bombs. They are all my seniors and they Were in junior high school then, forty years ago."

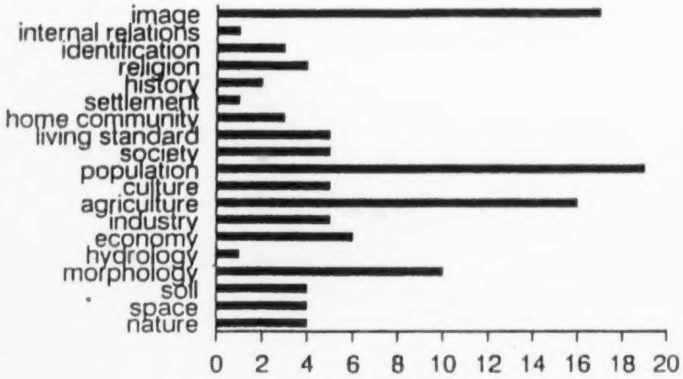

Figure 2 Number/intensity level of the content categories (Britain)

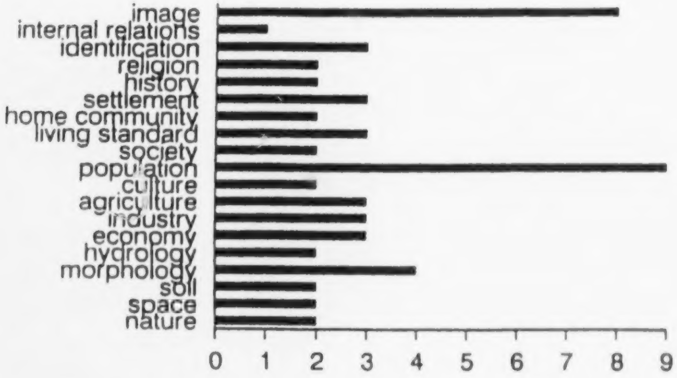

Figure 3 Valuation of content categories (Britain)

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(Koichiro Venatsu/Japan p.82)
Here we have the category "war", with an intensity level of 3, a negative valuation and no connectivity.

These quotations with those in appendix 1 illustrate some of the topics and interests of the young authors. Their perceptions are very complex and full of life compared with that indicated by the abstractly encoded categories, levels of intensity, valuations and connectivities. However this reduction is necessary in order to be able to characterize the cognitive and affective structure of the individual national perceptions and to compare these perceptions of the young authors.

Comparison of national identities. Because of limited space only two essays, one from England and one from France, are now compared.

Andrea Lyons, the English author, wrote about many different topics. However population, society, living standard, image, culture, landform, industry and agriculture received the highest intensity level of 5 (Figure 2). She is very strongly interested in the image English people have in the world and mentions both positive and negative sides of the English. She summarizes her very differentiated image as follows: "The English people have their bad points, but you will find that the majority of us are just like you, good people at heart, but we all have our faults".

The main area of her essay is related to fields such as historical background, status in society, clothes, language, leisure, social environment, living standard, education and population structure. Politics isn't one of her main interests whilst the historical, social and religious basis of her society are important. Her attitude towards the economic situation of Britain is negative - especially in respect of unemployment- and she relates her description of the economy to categories such as population, technology, services and international co-operation Figure 3).

Her identity with her country is the most critical of all authors. She writes: "I feel no strong patriotism to England or its rulers probable because of the terrible state that the country is in". But then she reduces this valuation and notes: "After saying this I must admit that I could not live permanently abroad, because I view England as my home and have a sense of affection for the country".

These few points are sufficient to be able to show how different the English and the following French author perceive their counties.

Farouk Soufi, the French contributor, sees his country only positively. There are no neutral or negative valuations. Farouk is especially interested in 11 main categories (Figure 4) whereas Andrea focused on 19. Farouk's areas are image, international cooperation,

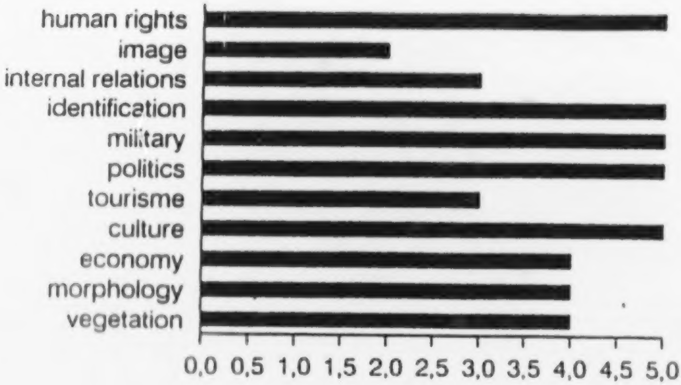

Figure 4 Number/intensity level of the content categories (France)

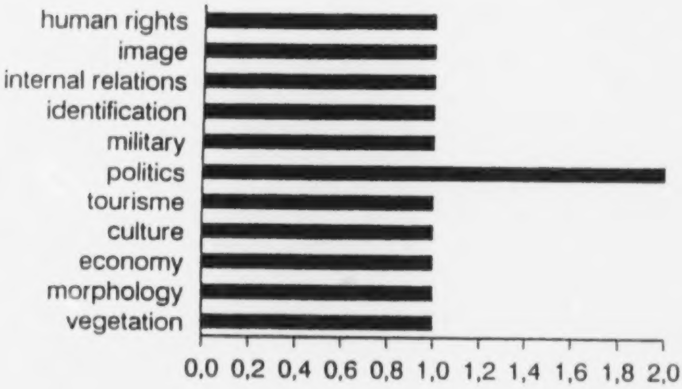

Figure 5 Valuation of content categories (France)

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human rights, economy, vegetation, landforms, culture, tourism, politics and military. Quotations for the categories "military" and "human rights" are given in the appendix. Farouk shows the strongest identity with his home-country when compared with other authors. He summarizes his essay as follows: "Now I have shown You my France: landscapes, traditions, tourism, political strategy, economy, historY with liberty and human rights. I think the best way to summarize all what I told you is to quote Charles de Gaulle (1890-1970): France cannot be France without grandeur!" Farouk also describes the French culture and tradition and relates them to the categories population, situation, social environment, history and international cooperation. Although Farouk describes fewer categories than the English author, he describes them at the highest intensity level of 5.

It may be that some readers now believe that their own perception of England and France are the same as those of the young authors and therefore right. Attention! Farouk and Andrea are only single people within their country and no representative sample is assumed in this pilot study. However, on the other hand, there are of course differences between nations and cultures. The world would be boring if people didn't show such a variety of values, attitudes and behaviour. Shouldn't we teach and accept as Andrea does when she writes: "When visiting France last year I realized my own "English reserve" on meeting the family with whom I was to stay. I had expected a friendly "bonjour" and a handshake from the parents. But to my surprise and, I must admit, considerable discomfort, I was hugged and then kissed several times on each cheek by every member of the family. I got used to this ritual each morning before breakfast, and each evening before retiring, though never did I learn to enjoy this affection." It is not possible to describe every national essay but similar to Andrea, nearly every author is conscious of the difficulty in characterizing, people because it very often means stereotyping. Therefore, nearly everyone stresses that he or she is giving only his or her personal view about his or her country.

The Main Structures of All Essays

The following section selects only those categories or topics which are educationally very important or are described by the students on the intensity level 4 and 5. These constitute 11 categories out of a total of 51. The content categories referred to by the students essays are given in figure 6.

Culture-orientation is typical for 14 of 28 countries and has the highest priority. In this the students write about language, clothes, food, education, architecture and attractions in their countries.

Content Categories with high Intensity Levels in 28 Student's Essays and 3 Textbook Articles

	Nature	Economy	Culture	Society	History	Politics	Identification	Peace	Image	Human Rights	Future	TOTAL %
China			1	1				1				3 2.4
Hong Kong			1	1	1	1	1					5 3.9
Japan	1	1				1					1	4 3.1
Australia	3		2									5 3.9
Bangladesh			2				1					3 2.4
Denmark						1						1 0.8
England	2	2	1	3					4			12 9.4
Germany	1	1	2			1			1			6 4.7
France			1			1	1			1		4 3.1
Ireland				2					1			3 2.4
Israel								1	1			2 1.6
Italy		1	1			1						3 2.4
Jamaica				1			2					3 2.4
Jordan						1						1 0.8
Kenya						1						1 0.8
Korea			2			2						4 3.1
Netherlands	1						1		1	1		4 3.1
Nigeria	2	1	2									5 3.9
Norway			1									1 0.8
Poland	1		1				1					3 2.4
Switzerland	1			1		1			3		1	7 5.5
Uganda	1											1 0.8
USA				5						1		6 4.7
USSR			2			1					1	4 3.1
Yugoslavia	1		1	1			2		2			7 5.5
USSR	8	3		3		1						15 11.8
USA	1	1		4	1					1		8 6.3
Great Britain	2	1	1			1						5 3.9
TOTAL	25	12	21	22	2	14	9	2	13	4	3	127
%	19.7	9.4	16.5	17.3	1.6	11.0	7.1	1.6	10.2	3.1	2.4	100.0

Figure 6 Content categories of all the essays

The 11 essays show a strong political orientation. Categories such as war, military and international understanding are important in this context and can be found under the connectivity ideas. Ten of 28 authors stress nature and describe many natural features such as situation, size, vegetation, animals, climate, soil, raw materials, landforms and water resources. Some essays contain 2 or 3 sections about nature. A social orientation can to be found in 8 reports; population, living standard, home community, home country, capital and social environment are typical subtopics within this social context. For example, the USA report contains 5 different small paragraphs about social issues.

Seven students stress the image their country has in the world. At first, the English author is very much engaged with this issue; 4 different paragraphs contain the topic auto- and/ or hetero-stereotypes. The Swiss author tries to correct the image Switzerland has in the world in 3 sections. Very strong national identity is shown by 6 authors: Bangladesh, France, Jamaica, The Netherlands, Poland and Yugoslavia. However other authors also show a kind of positive affection to their country. An economy-orientation can be found within 6 national perceptions and here the students write about foreign trade, industry, agriculture, mining, services, developing stage, technology and transport. The economy is of special interest and is therefore very broadly described.

Human rights are only important for France, The Netherlands and the USA. The other authors don't mention them. Similarly the category "future" is only stressed by 3 countries' Japan, Switzerland and the USSR. Peace is important only in 2 reports with only Israel and China treating it very intensively. In the other essays the issue of peace isn't treated under the main categories but can be found within others through the connectivity factors.

I also analysed geography textbooks in the same way as the students essays. Textbooks contained less categories than the students' reports. However the textbook paragraphs were more differentiated and contained more information. This difference shows that the students are more interested in a very broad approach and description of a country, i.e. they are not only motivated by the classical geographic topics but also and especially by cultural, political and social features or by human issues.

Conclusion

The national perceptions of the 15 Year old students from 28 countries from all continents bar Antarctica contained 51 different main subject areas or content categories. These categories, however, were selected and treated quite differently from student to student. The sample of this pilot study isn't big enough to build clusters of author types - but basically it can be said that the students are more interested in a broader approach in becoming informed about countries than textbooks normally offer. The cultural, political, social and human issues are of special interest beyond the classical geographic topics as nature and economy. The students don't hesitate to write about their values. Identification with their country is basically positive and only a few countries, such as Denmark, England and Switzerland, treat their national identity critically but, even then, not without some positive affection. The national identities of the authors from France, USA and USSR are very strong and extremely positive. The Russian author summarizes his statement as follows: "So in all spheres of our life whether it is school education or work or leisure or medical treatment I permanently feel the care of my State about me". A comparison with other countries can only to be found in few essays. The author from France writes for example: "We belong to the strongest states in the world. Indeed France's place is between the USA and USSR". The Japanese student admires Australia in a way that his national identity seems not so strong as his love of Australia

Inspite of some very strong national identity, there are no bad feelings towards other nations. The students' consciousness about the importance of peace and future is quite weak but there is an absence of a chauvinism which could build barriers against international cooperation. It seems that teachers have a very convenient basis to combine and balance national identity and international understanding through peace education for a better future.

APPENDIX 1

Category 13 vegetation:

> "In the far south, along the coastal belt the mangrove or salt water vegetation is found while in the north eastern region the vegetation thins out into the Sahel-Savanna. In the south, the agricultural products like coconut, swamp rice, cocoa, Palm oil, cassava, maize and yams are grown, while in the north groundnuts, beniseed, upland rice and cotton are grown."
> (Nnaemeka Okpala/Nigeria p.113)
> This example is encoded in the category "vegetation", and has an the intensity level 5, 9 "neutral" valuation and connectivity with "climate", "agriculture", "situation" and "landforms".

Category 26 development:

"The economic development during the forty Years after the war was not equal in the whole country. In spite of brotherly help, some territories have still developed slowly. Reasons can be found in different levels of economic development through history as well as in the unequal occurrence of natural resources."

(B.Pregelj and P. Campa/Yugoslavia p.153)

This quotation is coded as "developing" with an intensity level of 3 and neutral valuation. Connectivity links with "economy", "history" and "raw material".

Category 32 architecture:

"From these mountains, Jabal Amman, is the white stone of which all the houses and villas are built. They have a beautiful and nice architecture. In my opinion these are the nicest houses I've ever seen, considering that I travel a lot with my parents."

(Rana Samawi/Jordan p.90)

This example illustrates the category "architecture" with an intensity level of 3, a Positive valuation and connectivity with "mobility".

Category 41 society:

"In England, as in all countries, there is a social hierarchy. This is not as definitely defined as it was in the nineteenth and very early twentieth century, today the upper class and upper middle class merge together, the lower middle class and the working class merge together also. The upper class consists of the Royal family, titled aristocrat and important members of Parliament. The middle class is much more difficult to define. This is made up of members of Parliament, business owners and important people in industry. The working class consists of "ordinary" people, workers, tradesmen, shopkeepers, the unemployed - making up the majority of the population. There have always been more working class people than middle or upper class and with the help of unemployment in England, this is still true today."

(Andrea Lyons/England p.28)

The category "society" an intensity level of 5, a neutral valuation and connectivity with "history", "population" and "living standard"."

Category 45 living standard:

"It is true Switzerland is a rich country. But even here the heaven doesn't rain money. Nobody suffers for hunger and everybody has his roof over his head. Nowhere you can find actually poor and criminal people in the streets.
But you have to know: Not every Swiss is rich. There are Swiss families who have to work very hard to earn their living. And those who are rich aren't so without reason. The richness has to be earned through much work."
(Rahel Stauber/Switzerland p.134)
This paragraph was coded as "living standard" with an intensity level of 5, a positive valuation and a connectivity with "population", "society" and "economy".

Category 53 history:

"I would like you to know the importance of the state of Israel to the Jews, that we are driven out of the country and were separated among the nations all over the world. No matter where we were, we were persecuted because of our different religion. Then the Nazis came and almost succeeded in exterminating us. Only then did we understand that we cannot go on living without a country of our own and we returned to our old countrY of which we had diaspora."
(Moshe Shaham/Israel p.68)
This category "history" is described with an intensitY of 4, a negative valuation and connectivity with "population", "religion" and "home country".

Category 60 politics:

"Denmark has nearly always been a kingdom and it is the oldest kingdom in the world. Our first king was "Gorm den Gamle". We don't know when he started ruling the countrY but he stopped about 950 years ago.
Right now we have a Queen called Margarethe the Second. She is the second Queen in Denmark's history and she is a descendant of the old king Gorm. She has not got much power and she doesn't exactly rule the country but leaves that to the Danish Parliament.
The Danish Parliament is elected by the Danish people who have the right of voting. To have the right to vote, you must be over 18 years. In Denmark both men and women vote."
(Mette Humle Jorgensen/Denmark p.25),
This quotation was categorised as "politics" with an intensity level of 5, a neutral valuation and connectivity with "history" and

"population".

Category 61 military:

"We have many military aeroplanes, nuclear submarines and nuclear weapons and therefore we belong to the strongest states of the world. Indeed France's place is between the USA and the USSR, because it is not a member of the Nato. One isn't quite sure wether France acts with the USA or alone for itself. Thus France is able to play an important role to hold the military balance between the world powers. Besides that France is staying all over the world: in Africa, America, Polynesia and the Middle East."
(Farouk Soufi/France p.46)
The codes for this paragraph are "military", intensity 5, positive valuation and connectivity with "identification", "technology", "international cooperation" and "politics".

Category 63 international understanding:

"My country wants just warmth and peace with all the Arabic countries."
(Ani Azriel/Israel p.65)
The category "international understanding" is connected with "peace", a positive valuation with an intensity level of 2.

Category 71 identification:

"I will show what the main features are and what France means to myself. In a first part, I will describe France as a country of traditions, tourism and different landscapes. In a second part, I will show that France is an economically and strategically very important state and that it was also important in its history. In a last part, I will demonstrate that France is a country of liberty and human rights. This all means France for myself ...!" (Farouk Soufi/France p.44)
This example is coded as "identification" with an intensity level of 5, a positive valuation and a connectivity with culture", "tourism", "landforms". "economy" and "human rights".

Category 73 peace:

"I want You to know that Israel wants peace with the Arab countries, but they want Israel to themselves, and if we give them Israel we won't have any other place to go to. The Arabs have many countries while we have only one and they want it to be theirs too."
(Moshe Shaham/Israel p.68)

This quotation is coded as "Peace" with an intensity of 4, a positive valuation and a connectivitY with "international understanding", "identification" and "home-country".

Category 74 image:

"Most English people have a set picture in their minds of how they imagine foreigners to be. TheY have a different image for each countrY and this picture rarely changes even after visiting this country and meeting its inhabitants; the English are stubborn and do not change their minds so easily. So, probably, do all foreigners have their own set image of the English in their minds. At the turn of the centurY this image would have been one of upper class men dressed in tweed jackets and Hannet trousers, speaking with Oxford accents and playing bridge and watching cricket in their spare time. This image no longer exists. Unfortunately, for England, all the past couple of Years an image of England as a nation of football hooligans has developed overseas. Both of these images of the English people are wrong but I cannot give an image of the average English person because within the country the people vary enormously. What I can say is that the typical English person is neither upper class nor a football hooligan, the majority of the population is working class and also law abiding.

Most foreigners see the English as cool, unemotional and standoffish. This is often referred to as the "English reserve" and admittedly it does exist."

(Andrea Lyons/England p.30)

This description is coded as the category "image", an intensity level of 5, a negative valuation and connectivity with "population".

Category 75 human rights:

"And now for the last symbol of France - to liberty!

Indeed France is the first country which obtained, by fighting, the human rights during its revolution in 1789. This French declaration became the basis of the declaration of the human rights in 1948. Therefore we can characterize France as the country of human rights. France also belongs to the countries which signed the bill of children's rights on 20th November 1959. France protects and practises the right of sanctuary and the free movement of the unions. France together with five other states - possesses the veto right in the United Nations. The idea of liberty is -I believe - the idea of France."

(Farouk Soufi/France p.48)

Farouk.s description is coded in the category "human rights" with an intensity level of 5, a positive valuation and a connectivity with "history" and "international co-operation".

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WHAT PACIFIC RIM: ASIAN STUDIES IN THE SOUTHEASTERN UNITED STATES

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Abstract

For the past decade attention has shifted to the Pacific Rim as the United States contemplates the economic and political dimensions of the next century. In the southeastern United States, Korean and Japanese investments have been substantial; Southern governors pursue increased trade with Asian nations. Analysis of course offerings and enrollments reveals that Southern universities are paying little heed to Asian studies. This paper contrasts Asian nations' very real interest in the South with geographer's apparent lack of interest in Asia. The paper concludes by offering several possible explanations for Southern indifference to Asian studies.

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TEACHING ABOUT ASIAN PACIFIC COUNTRIES IN UGANDAN SECONDARY SCHOOLS

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Introduction

This paper examines the view of Asia as seen in Uganda and attempts to show why and how Asia is included in the curriculum of Uganda. This analysis is carried out by reviewing information in Ugandan curriculum documents and the images of countries portrayed in texts available in Uganda (see bibliography).

A Perspective on Asia

The major feature of Asia which we perceive is the contrast apparent in this enormous continent of over 43 million sq. km. Asia contains both:

- the earth's highest point, Mt. Everest (8,848m) and on its eastern margin, the deepest ocean trench;
- some of the smallest countries, e.g. Singapore (2.6 million) and the most heavily populated country, China (over 1 billion);
- some of the largest cities in the world (Beijing, 9.5 million; Tokyo, 8.3 million) and large tracts of land with only small rural settlements;
- some of the wealthiest and most advanced countries alongside some of the poorest.

Asia has had important influences on the life of the people in many African countries. This impact is seen in diverse ways -aid, immigration language and trade for example.

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Asia in the Ugandan Geography Curriculum

'As with many geography curriculum, regional coverage is inevitably incomplete given the constrictions of class time. Hence in Ugandan schools it is not possible to teach about every county in Asia, or in any other continent for that matter. Thus case studies are selected. The sub-regions and major themes chosen are summarised in Table 1.

Sub-region	Major Themes/Topics
The Indian sub-continent	Life in monsoon climate, monsoon climate, irrigation in Punjab, tea growing in India.
South-east Asia	Rubber in Java, Farming in Java, Singapore.
China	Commune, Industry, Hong Kong.
Japan	Farming, Industry, Tokyo, Volcanoes and earthquakes.
USSR	Siberia and the collective farming in Ukraine, Mining and industrial development.
Middle-East	Oil, Israel-Kibbutz

Table 1 The sub-regions and major themes covered (Ministry of Education, no date).

Asia is taught at Ordinary school level in the lower forms of S1 - S2 for about one or two terms. These classes are non-examinable as far as the Ordinary level certificate is concerned, and thus teachers are at liberty to teach Asian topics at their discretion. There is one exception, China is offered as the only optional section at S3 - S4 level and hence is examinable. The non-examinable sub-regions cover the Indian sub-continent, and Japan. Thereafter we shall present a short text on China. We may briefly turn to the teaching styles used. Since the syllabus is based on sample study approach, the physical, human and practical aspects of the subject are integrated (e.g. Rushby et. al 1968 and 1971). There is also much emphasis on comparing themes with those covered locally. For example, the study of Hongkong would be preceded by an introductory review of the development of a local port in Uganda. This approach from the known to the unknown eases the understanding of geographical concepts. However, in the rest of the presentation, the focus will not be on how but on what is taught about Asia. It will not be possible in this short presentation to cover all the Asian countries which we teach about. However, three countries which are particularly stressed in our syllabuses will be covered namely India, Japan and China.

A View of India in Ugandan Schools

Three themes are emphasised in Ugandan geography classes:

1. population and social divisions
2. Water supply and the monsoon
3. Industrialisation

India is perceived in general as a poor but populous country. The comment must be qualified with "generally" as, although the bulk of the population is poor, there is a sizable proportion with middle income life-styles comparable to that in advanced countries. These differences are focused in the system of social stratification, the problem of the landless rural poor and the untouchables. In particular, the dilemma that solutions to poverty, e.g. the Green Revolution, provides the greatest benefit to the middle class is raised. Overall solutions to the problem is seen in terms of limiting population growth and family planning programmes.

The influence of the monsoon on the lives of people is stressed. Excess rainfall brings flood and loss of life, but badly needed irrigation water; failure of the monsoon brings drought and the risk of famine. Irrigation is seen to be the key to ameliorating the affects of drought. The contrast is highlighted between simple traditional means of irrigation,largely used in the South, and modern large scale perennial irrigation of the North where rainfall is less reliable.

Unlike many African countries, India has the experience of industrial development both the small scale of dispersed cottage industries and the highly localised large scale heavy industries, such as steel, which are located on raw material sites and major cities.

A View of Japan in Ugandan Schools

The influence of Japan is apparent in Uganda in the guise of Japanese cars, radios and aid programmes. Japan provides a role model for developing countries by illustrating how development can take place in the face of a rugged and difficult environment and in the absence of raw materials. Japan in the minds of Ugandan youth emphasises how man can overcome the problems of their surroundings.

A focus in the study of Japan is industry and the way, over history, Japan was able to become a major producer of cars, ships, steel and nuclear power. The influence of political stability in enhancing development is contrasted with the situation found in many developing countries. Similarly the way Japan sent people abroad during the 19th century to gain new skills and bring back technology is also noted. The negative impact of human behaviour is also commented on with the rise of nationalism, colonial expeditions into China and war in the mid 20th century.

Similarly in agriculture the Japanese are viewed as a people with large population who have been able to overcome the physical constraints imposed by the environment. In a country where only one quarter of the land is suitable for agriculture, the nation has fulfilled the people's desire for a high standard of living by the use in agriculture, for example, of special varieties and irrigation to produce high yields.

A View of China in Ugandan Schools

Just as Japanese goods are common in Uganda so too are products from China which is thus a country which has some meaning in the minds of the people. Teaching about China offers the opportunity to study development strategies of a communist society in which the basic objective is to discourage the exploitive upper class and provide for the welfare of the masses. Communism has transformed China. This is seen as being particularly so in the rural areas where the bulk of the population lives. Prior to 1949, the problems in the countryside centred on the way land was concentrated in the hands of a minority of landlords to be rented to the mass of peasants. After 1949, the peasants first came to own their own land but fragmentation led to the development of neighbourhood teams, consolidated collective farms and communes, the last of these being seen as the way to make progress during the "Great Leap Forward" of the late 1950s. In the geography of China in Uganda, these changes are seen as the focus in explaining the landscape of today.

Conclusion

Asia and Asian Pacific countries are dealt with piecemeal in the Ugandan geography curriculum through selected case studies. In the time available only specific aspects of selected countries can be covered. In Uganda issues of development are important and insight can be provided for children in schools by looking at the experience of Asian countries.

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TEACHERS' SKETCH MAPS OF THE WORLD: AN ANALYSIS OF THE ASIAN PACIFIC REGION

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Abstract

The analysis of sketch maps is an important and useful technique for assessing mental images people hold of a region or of the entire world. Sketch maps of the Asian Pacific Region drawn by secondary teachers of geography and social studies were analyzed to determine if background experiences in geographic education affected the accuracy of the maps. The analysis revealed that the accuracy of sketch maps was most closely related to secondary school geographic education, rather than to college level courses or to the effects of television, newspaper reading, or travel.

Introduction

The mental images that people have of specific regions or the world have been a long standing research interest for geographers. While mental images of the world appeared very early as maps prepared by cartographers charting the unknown (Baddeley, 1917), the research by geographers using sketch maps to portray the mental images that people have of the world and places has been relatively recent (Saarinen, 1988). The sketch map technique requires that subjects draw a free-hand map on paper of some region or all of the world from memory. Sketch maps are an important data collection technique since they theoretically represent the internal spatial representation, or spatial image, that an individual holds. While there are other techniques that have also proven useful in evaluating an individual's images of the world (Golledge, 1975), the sketch map has presisted as one of the most widely used methods.

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The central problem addressed by this study was to examine relationships between geographic education, the reliance upon a variety of sources for geographic information in everyday life, and the ability of teachers to draw accurate sketch maps of the Asian Pacific Region of the world. The hypotheses for the study were:

1. Teachers with a more memorable geographic education at secondary school will draw more accurate sketch maps of the Asian Pacific Region than those teachers with less memorable experiences (A memorable geographic education is one which the respondent recalled as being interesting, providing useful information, and making a lasting impression regarding geography as a subject);
2. Teachers with greater numbers of courses in geographic education at the collegiate level will draw more accurate sketch maps of the Asian Pacific Region than those teachers with fewer courses in geographic education; and,
3. Teachers who rely on a variety of sources for geographic information will draw more accurate sketch maps of the Asian Pacific Region than teachers who rely upon fewer sources for geographic information.

The use of sketch maps, mental maps, and cognitive maps has been a persistent theme within geographic research (Downs & Stea, 1977; Gould & White, 1974). One of the first studies of mental maps to achieve widespread recognition within professional geography used educational attainment as a key variable. The study reported the characteristics of the mental maps of early-school-leavers in Great Britain, and analyzed patterns on the sketch maps that were related to educational attainment and place of residence (Gould & White, 1974). Research in cognitive and mental mapping has used sketch maps as a surrogate for spatial cognition. Sketch maps have been used to research map reasoning abilities, including the encoding and decoding of spatial elements (Wilson, 1980). In Wilson's study, pupils at the third, fifth and seventh grades students drew free hand sketch maps of a familiar area. Analysis of the sketch maps revealed that proportion was the most difficult map element for students to sketch, followed by arrangement (location), abstraction (symbolization), and perspective (orthogonal view).

Bosowski (1981) studied sketch maps of the world drawn and labeled by 2,225 kindergarten through 12th-grade students to determine if there was a progression in the formation of map images. Both the quantity and variety of information included on the sketch maps increased with age. Pregressively greater increments in the amount of information on the maps appeared from students in grades 3, 6, and 9, respectively. In terms of inclusion, the major geographic unit that all students included on their sketch maps was the

United States. Next in order was Canada, followed by the continents of South America and Africa.

Overjordet (1984) investigated the effects that an important world event, in this case the war between Argtentina and Great Britain, had on sketch maps drawn by school pupils. Pupils aged 7 to 16 years completed sketch maps of the world at the conclusion of the conflict and the relative attention to the Falkland Islands was analyzed. The researcher concluded that the sketch map of the world is not stable and changes as events refocus attention to various regions and places. The role of news coverage through television and newspapers was deemed to be an important element affecting sketch maps.

In another study, Saarinen examined sketch maps of the world drawn by college students in 49 countries (Saarinen, 1988). The 3863 maps were analyzed to determine the region of the world which was centered on the maps. He found, in general, that the Eurocentric map of the world was dominant, with Sinocentric and Americentric maps being drawn less frequently. He concluded that there was a relationship between the part of the world in which the students lived and the region on which their maps were centered. That tendency deviated, however, in places with a lingering European influence, especially if it was manifest in the structuring of the geography curriculum. Students in those places often drew Eurocentric sketch maps.

Since few of the earlier studies had specifically examined the effects of geographic education on the sketch maps, Saarinen and his colleagues carried out another study designed to examine the relationships between the accuracy of sketch maps and geographic education (Saarinen, MacCabe, & Morehouse, 1988). They analyzed the sketch maps of 99 students at the University of Arizona in relationship to their geographic education in precollegiate school years, their sources of information for obtaining geographic knowledge, and their travel experiences. The main focus of the research was to identify the experiences in geographic education that were characteristic of students who drew exceptionally good sketch maps. They concluded that: 1) sketch map accuracy was a surrogate of geographic knowledge, as evidenced by the relationship between sketch map accuracy and test scores of geographic knowledge, and 2) the students who drew the best sketch maps also tended to rely upon a variety of sources for geographic information, including maps, atlases, the media, and travel.

While sketch maps have been a popular source of data , there are several shortcomings. Criticisms of sketch mapping as a data collection technique include the lack of standard criteria for evaluating maps, that map drawing skills rather than spatial information are being assessed, and that the sketch map may be only a copy of a map viewed regularly in school, or elsewhere. The research has also been criticized for lack of random sampling and scientific research design. Despite those criticisms, the sketch mapping research has revealed that people of allages have major distortions in meaning and misconceptions about the world in mapped form, a finding that has practical significance for geography teaching.

On the other hand, the research reviewed, despite several shortcomings, suggests that sketch maps provide an important source of information about how people view the world. It is a technique that addresses a range of research concerns relative to geography teaching, including those of spatial visualization, spatial cognition, and mental images. However,with the exception of the research by Saarinen, MacCabe, and Morehouse (1988), few researchers have collected data pertinent to explaining the role of geographic education in the accuracy of the sketch maps drawn by students.

The purpose of this study was to examine in greater detail the relationships between accuracy of sketch maps drawn by teachers of geography and social studies, and the following: 1) their geographic education experiences at the school and collegiate levels; and, 2) the diversity of materials that the teachers relied upon to gain geographic knowledge.

Sample Selection

Sketch maps of the world were completed by 274 teachers participating in summer courses in geography at eight colleges and universities in the United States. In addition, the teachers completed a geographic information questionnaire (Barrows, 1981). The questionnaire requested information regarding educational background, travel, media viewing and reading behaviors, and general knowledge and interest in geography.

Two elements of sample selection for the study need further elaboration. First, the sample was not randomly selected from the population of teachers in the United States. It was a sample of convenience, reflecting more closely those teachers interested in geographic education than would have been reflected in a random sample of all teachers. Second, the effects of sample size on the analyses of the sketch maps was a consideration. The number of maps collected (n = 274) was large enough that statistical significance was readily achieved even when the differences in mean values for the data were inconsequential. While such differences are important in pure statistical analysis, the study was more interested in the educational or practical significance of the differences in mean values. Therefore, the number of sketch maps analyzed was a 10 percent sample, randomly selected, from the sketch maps completed. That procedure resulted in the selection and analysis of 27 sketch maps and corresponding questionnaire data. This made the analysis more manageable, and prevented small differences in mean scores, such as would be of little significance educationally, from dominating the reporting of results (Shaver, 1985).

Data Collection

The teachers were .requested to sketch the world following the directions developed by Saarinen (1988).

In brief, they were provided with a standard sheet of blank writing paper and asked to complete a map of the world. While the focus of this report is the Asian Pacific Region, it was deemed important that they place the region in a global perspective. A criterion in assessing the accuracy of the region was its location on the sketch map in relationship to the other regions of the world.

Scoring the Sketch Maps

The sketch maps were scored using the criteria developed by Saarinen, MacCabe, and Morehouse (1988), modified for application to the Asian Pacific Region. The scoring used a five point scale based upon the following criteria.

1) Identification, shape, and size of continental land masses;
2) Identification, shape, and size of countries;
3) Relative location of countries, continents, and water bodies.

Each sketch map was evaluated against the criteria and assigned a classification ranging from one to five, following the procedures used by Saarinen, MacCabe, and Morehouse (1988). In terms of both quantitative and qualitative aspects of the sketch maps, similarities were apparent between the sketch maps evaluated as one, two, or three, with one being the least accurate, and those maps evaluated as being a four or five, with five being the most accurate.

Analysis of Data

The hypotheses were tested and sketch maps and the questionnaire data were .analyzed using correlation and analysis of variance statistical techniques.

Hypothesis 1: Teachers with a more memorable geographic education will draw more accurate sketch maps of the Asian Pacific Region. Since the potential number of precollegiate courses in geography is never large, considering the general secondary school curriculum structure for the Untied States, the teachers were asked to rate how memorable their school geography was (both as a separate subject and as part of the social studies) and its importance in developing their image of the world as reflected by the sketch map. A statistically significant relationship between the memorable rating for school level geographic education and the quality of the sketch maps of the Asian Pacific Region was observed ($r = .43$; $p < .05$). Although statistically significant, the value $r = .43$ was not judged to be especially strong.

The data were then examined using analysis of variance procedures (Table 1). The scores on the sketch map were classified into two groups: group one (poorest), included the sketch maps rated one, two, or three; and group two (best), included the sketch maps rated four or five. That classification was used for the subsequent analysis of differences between groups.

Table 1

Analysis of Variance:

School Level Geography X Accuracy of Sketch Map

Effect	SS	DF	MS	F	P
A	13.19	2	6.59	3.48	.05*
Within	45.48	24	1.89		

*p<.05

The mean scores for the groups classified by two categories, higher scores and the lower scores, respectively, were 4.07 (SD =

1.16) and 2.64 (SD = 1.63). When applied to the school level, the hypothesis was accepted. The data supported the hypothesis that the more memorable the school level geographic education, the more accurate were the sketch maps of the Asian Pacific Region.

Hypothesis 2. Teachers with a greater number of geographic education courses at the collegiate level will draw more accurate sketch maps of the Asian Pacific Region. The relationship between the number of college level courses in geography and the accuracy of the sketch maps of the Asian Pacific Region was not statistically significant ($r = .34; p > .16$) . The hypothesis that a greater number of college level geography courses was related to more accurate sketch maps of the Asian Pacific Region was rejected.

The educational significance of the findings are that teachers completing the more accurate sketch maps of the Asian Pacific Region had a more memorable geographic education at the school level than did teachers with less accurate sketch maps. The number of college level courses in geography was not significantly related to the accuracy of the sketch maps. The data suggest that experiences in studying geography and developing mental images useful for drawing accurate sketch maps are more important during the formative school years than are .studies during the collegiate period. One explanation may be the amount of time devoted to mapping exercises in school geography, as compared to the greater amount of .time devoted to textual reading at the collegiate level, with less time devoted to map study that enhances mental images.

Hypothesis 3. Reliance upon diverse sources of geographic information results in increasingly accurate sketch maps of the Asian Pacific Region. The differences between sketch maps mean scores and the mean scores for teacher self-ratings on their behaviors in watching international news on television and reading an international oriented newspaper daily were analyzed. When divided into two categories as described above for analysis of variance purposes, one group with higher and one with lower scores on the sketch maps, the means for television news viewing and newspaper reading were, respectively, 1.56; 2.13; and 1.82; 1.44. There were no significant differences between the means for the two groups. The relationship between travel and the accuracy of sketch maps was not statistically significant. The multiple relationship between television news, newspaper reading, travel experience and the accuracy of sketch maps was not statistically significant. Therefore, the hypothesis that teachers who relied upon a variety of sources for geographic information drew more accurate sketch maps was rejected.

Conclusions

The data in this study suggest that the ability to draw accurate sketch maps is most closely related to how memorable a person's geographic education was in secondary school. These findings have educational significance for curriculum planners and teachers. This is especially true in the United States where the geographic knowledge and accurate views of the world have been shown to be inadequate time and time again among the general population, and especially among the school and college aged segment of the population (National Geographic Society, 1988).

A similar relationship was not observed between geography education at the collegiate level and the accuracy of sketch maps of the Asian Pacific Region. While geographic education at the college level is intended to improve one's geographic knowledge, there is probably not the same amount of work with maps as occurs in the school grades and that may directly affect sketch mapping. Part of the explanation may also be the greater specialization, both regionally and topically, that college level courses pursue, as compared to the more holistic approach to geography when it is included in the secondary school curriculum (Stoltman, 1990). Collegiate level courses incorporate more thematic geography, such as urban, economic, or cultural themes, and those courses may not engage students in developing mental images of regions or of the world that later become manifest as sketch maps.

Similarly, television, newspapers, and travel provide geographic education opportunities, but they may not incorporate maps. Consequently, they probably do not provide reinforcement, or build upon the mental maps (that are later transformed to sketch maps) held in the minds of the viewers, readers, or travelers.

The results of the study point out that secondary school is an important formative experience where students either develop. accurate mental images of the world that they can draw as sketch maps of regions and of the world, or leave school with inaccurate mental images that affect the accuracy of the sketch maps they draw later in life.

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SOUTH AFRICAN STUDENT PERCEPTION OF THE ASIAN PACIFIC REGION

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Abstract

Following a semester course in perception and planning, the third year Geography class at the University of the North, South Africa, took part in a perception project. In an attempt to combine perception and regional geography, the Asian Pacific Region was used as an example. The class prepared a questionnaire for three groups of students - two Black and one White- including questions on *knowledge* and *perception* of the region. The results revealed a very limited knowledge and a mix of positive and negative attitudes towards the Region which merit future attention.

Introduction

Geography teaching for the *primary school* child in South Africa commences at the age of +10. At this stage the emphasis falls on orientation in and knowledge of the local environment. The following year they proceed to a study of physical, cultural and economic aspects of their own country. This is followed by a study of their own continent viz. Africa. In the last year of primary school education, emphasis shifts to the world as a whole but selected regions are also studied. It is only at this stage that some syllabi include selected aspects of Asia eg. fishing and farming in Japan and population distribution and density in China.

Similarly the *secondary school* syllabus is characterised by a dearth and more often total absence of topics dealing with Asia. At 15 year level (Std. 7) one may come across a text book devoting 5 pages to Thailand as an example of a monsoon country. In the next year or two some authors may discuss India as an example of a developing country and Japan and the USSR as examples of technically developed countries.

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Since Geography is compulsory only up to Std. 7 level in South African schools, most children therefore know very little about Asia when they leave school. In *tertiary education* the situation is even worse. At technicons, Geography is not offered while only a limited number of students take Geography as a subject at teachers training colleges and universities. At South African universities, students studying Geography seldom comprise more than 5% of the total student body. Furthermore, most South African universities do not teach regional geography and therefore students do not receive any formal instruction on aspects of the Asian Pacific Region. With this in mind we decided to carry out a perception study of the Asian Pacific Region as viewed by South African students.

Conducting the Perception Project.

The groups conducting the study It was decided that the third year students in the Geography Department of the University of the North would undertake the study. They would be guided and supervised by three lecturers. This group consisted of 60 Black students, most of them Northern Sotho. When the project commenced, all of them had received 2 $^1/2$ years of formal Geography instruction at university level and did a semester course in planning and perception. They were expected to study the Asian Pacific Region and in consultation with their lecturers, compile a questionnaire.

The questionnaire It was decided that the questionnaire should contain questions concentrating on knowledge of and attitude towards Pacific Asia. Furthermore the questionnaire started with location, proceeded to physical aspects, peoples, culture, economic aspects, religion, transport, politics and then concluded with the respondent's attitude towards Pacific Asia. A copy of the questionnaire is attached as addendum 1.

The respondents It was decided to run the questionnaire among three groups of students. This provided variety concerning culture, geographic knowledge and age.

1. The first group of 123 was representative of all Black students of the University of the North. Generally speaking this group did not receive any Geography teaching at tertiary level. In this group 72 students were male, 51 female with an average age of 27 years. This survey was conducted by third year students who personally supervised the completion of the questionnaires.

2. The second group consisted of 91 first year Geography students. In this group 33 were male, 58 female with the average age of 24. This survey was conducted by a part-time lecturer and no exchange of information was allowed.

3. The third group consisted of 100 White matric Geography pupils with the average age of 17 $^1/2$ years. In this group 68 pupils were male and 32 female. Again a part-time lecturer supervised the completion of the questionnaire and no exchange of information was allowed.

Responses

Most of the responses could be quantified to make conclusions regarding all the respondents as well as comparisons between groups possible. All the results were tabled but only selected aspects are highlighted here.

Location and direction More than 85% of all respondents could indicate Pacific Asia on the map. Interestingly enough, scores were more or less the same for the three groups. It is, however, disturbing to notice that some respondents placed Pacific Asia in South America and others in North America.

The vast majority (84%) regarded Pacific Asia to be in the northern hemisphere, indicating that 16% did not know where Pacific Asia is, or did not know that the globe can be divided into a northern and southern hemisphere. More than one out of every four respondents were fooled by the direction of Pacific Asia with regard to South Africa. The first year Geography students did not perform well here and 33% supplied incorrect answers.

Knowledge of regions and countries

1. *Japan*: Most of the White group (82%) knew that Japan is part of an island group, while slightly more than half of the other two groups were aware of this fact.

2. *Taipei*:The fact that Taipei is in Taiwan baffled most of the respondents and only 12% supplied the correct answer. Some even placed Taipei in Europe and 13% ventured no answer.

Seasons: The vast majority of the respondents were aware of the differences in seasons between the northern and southern hemisphere. Therefore, 88% indicated that it will be winter in Pacific Asia when it is summer in South Africa.

Rivers: Most of the respondents (60%) knew that the Chang Jiang is a river in Pacific Asia but a considerable number placed the Mississippi and the Amazon in this region.

Population: Interestingly enough, 37% of both groups 2 and 3 indicated that China is the most populous country in Pacific Asia. Group 1 did exceptionally well with 72%. Almost 80% of the respondents regarded Pacific Asia as densely populated - only group 2 had a considerable percentage (34%) who regarded the region as sparsely populated.

Asian-Pacific perceptions

Neighbours:Most of the White respondents (81%) stated that they would prefer to have a European neighbour, while the Black responses were rather mixed. Approximately 50% of them preferred Black neighbours while half of the remaining respondents preferred White neighbours and the other half Asian neighbours.

Stereotypes: Question 11 reflected the respondent's perception of Asian Pacific people. Although a considerable number in each group preferred not to give an opinion, the results are nevertheless very interesting and the question, as well as the responses are given here.

	Gr 1	Gr 2	Gr 3	Tot.		Gr 1	Gr 2	Gr 3	Tot.
Tall	21	18	20	59	Short	46	10	62	118
Hardworking	72	41	78	191	Lazy	10	3	8	21
Rich	35	16	26	77	Poor	24	5	58	87
Warlike	28	22	32	82	Peaceful	33	8	37	78
Backwards	15	15	25	55	Progressive	50	38	60	148

Figure 1 Perceptions of Asian Pacific people

According to the responses the Pacific Asian people are regarded as short, hardworking and progressive, but the respondents are divided as to whether these people are warlike or peaceful and rich or poor.

Handwriting: Obviously most of the respondents have at some stage seen Chinese handwriting because most respondents had no problem in identifying it from the three examples given.

Crops: The vast majority (77%) regarded rice as the most important agricultural crop of Pacific Asia, but wheat and maize together were indicated by 17% of the respondents. Other crops that were mentioned were cotton, silk, sugar, potatoes, tea and coffee.

Cars: Two questions on Japanese cars proved that most respondents (71%) knew that Toyota comes from that country, but a considerable number (21%) credits the Japanese with making Mercedes Benzes. Although price and availability were regarded as important attributes, most respondents stated that they prefer Toyota because of its good quality.

Political systems: Although 30% of the respondents did not give an opinion on the political systems of Pacific Asia, 50% regarded communism/socialism to be dominant in this region.

Religion: More than half of the respondents (52%) regarded Buddhism as the dominant religion of Pacific Asia but 37% regarded Islam as dominant.

Tourism, transport, emigration: It seems as if Japan and China top the list as far as popularity for a holiday is concerned. Reasons given vary from scenery and weather to culture and technology. Most of the respondents have chosen to travel by air but 20% seems to prefer the placidity of an ocean voyage. A remarkably high number (38%) states that they would prefer to stay in a Pacific Asian country for five years or longer. Eastern culture, advanced technology and adventure were given as the most important reasons but three respondents state racial freedom as a reason. At least 60% of the respondents, do not fancy the cultural differences, densely populated areas, communism, wars, natural hazards, etc.

Currency: Only one third of the respondents knew that the yen is the Japanese unit of currency. It seems as if the omnipresence of the dollar in the world economy confused many respondents.

Atomic bomb: Although most of the respondents were not even born when the atomic bombs were dropped on Hiroshima and Nagasaki in 1945, the historical importance of these events ensured that most respondents supplied the correct answer.

Knowledge of the region: Most respondents seem to have acquired their knowledge of Pacific Asia from newspapers, magazines and television, while the radio plays a minor role in supplying information.

School syllabi: It seems as if the vast majority (90%) only studied Japan, China and the USSR at school level. A few respondents regarded the USA and Germany as part of Pacific Asia.

Student unrest in China: Surprisingly only half of the respondents knew about the student unrest in China in 1989.

Trade: The trade relations between Taiwan and South Africa is well known and the question posed no problem to 81% of the respondents.

Asian Pacific attitudes : The respondents were more or less equally divided in their perception of Asian Pacific attitudes towards South Africa. Half of the respondents regarded it as positive and the other half as negative. Trade is regarded as positive and sanctions as negative. From our side on the other hand, technology, culture and being progressive are regarded as positive and communism, religion, wars, earthquakes and population density as negative aspects.

Hong Kong: Despite the importance of electronics and jewellery, more than half (52%) regarded toys as the most important product of this country.

Architecture: Most (55%) of the respondents regarded the middle picture (Addendum 1) as typical of Pacific Asian architecture.

Interpretation of results

South Africa is a multi racial society and in research like this, background, knowledge, perceptions and conceptions of the different groups should be taken into consideration. Although the survey revealed considerable common ground among the respondents, there are, however, differences that should be taken into account. It seems as if most of the respondents have a very limited knowledge regarding location, direction, physical attributes, culture, politics, economy, etc. of the Pacific Asian Region. The knowledge of the White school group proved to be slightly better than that of Black student groups. Sound knowledge is, however, lacking in all the groups.

Environmental *perception* has been defined as embracing those processes whereby man interprets and reacts to his environment and changes therein (Foin, 1976, 480). Direct perception is possible only when the scale is large enough eg. we can perceive suburbs and cities but when the scale becomes too small like a region, we have to *conceptualise* (Saarinen, 1976, 139). Furthermore, since none of the respondents have first hand knowledge of the Pacific Asian region, their views, attitudes etc. can be regarded as conceptions rather than perceptions. These conceptions are influenced by factors such as hearsay, book knowledge and of course, the media. Since Pacific Asia (like South Africa) is a remote region, most of the respondents probably never gave serious thought to their own attitudes towards Pacific Asia. One can, therefore, say that very few respondents revealed strong likes or dislikes regarding the region. They seem to be fairly neutral but the entirely different culture, technological advancement and the mystics of the East seem to appeal to most of the respondents.

Conclusion

Up to now the responses to the questions in the questionnaire have been treated objectively as if they were true opinions of the respondents. There is, however, reason to believe that the researchers (students) carrying out the survey amongst group 1 supplied answers to some questions to the respondents. Since the two other groups provided objective answers it would have been easy to ignore the results of group 1. They were included, however, because it is difficult to prove that answers were provided and furthermore the results of only a limited number, of questions could have been affected. It is, however, disturbing to infer that students who have done a semester course in perception, still do not fully understand what it is about - that is, to determine the perceptions of the respondents and not their own. In future selection of researchers will therefore have to be done more carefully.

The survey proved that the respondents have a limited knowledge of the Asian Pacific Region. It would probably not be farfetched to assume that it also applies to other regions of the world. One way in which this can be rectified is to re-introduce regional geography in syllabi. Emphasis on systematic geography, quantification, environmental issues and computers in the past decade or two, promoted specialization but sadly hampered knowledge of the world and its regions. Perceptions and conceptions of respondents proved to be positive and negative. In our divided world more should be made of positive attitudes towards interesting foreign cultures,

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advanced technology, profitable trade relations and tourism possibilities. On the other hand negative attitudes towards political systems, religion, strife, perceived hazards, etc. should be addressed in a more objective way.

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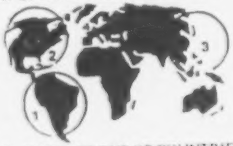
Addendum 1

SOUTH AFRICAN STUDENT PERCEPTION OF THE ASIAN PACIFIC REGION

MALE FEMALE AGE

1. ON THE ACCOMPANYING MAP WHICH OF 1,2 OR 3 IS THE ASIAN PACIFIC REGION ?



1
2
3

2. IS THIS GROUP OF COUNTRIES FOUND IN THE NORTHERN OR SOUTHERN HEMISPHERE ?

3. IN WHICH DIRECTION IS PACIFIC ASIA SITUATED IN RELATION TO SOUTH AFRICA

○ NORTHWEST
○ NORTH
○ NORTHEAST

4. WHICH OF THE FOLLOWING COUNTRIES IS AN ISLAND GROUP

○ JAPAN
○ VIETNAM
○ CHINA

5. IN WHICH COUNTRY WILL YOU FIND TAIPEI ?

6. IF SOUTH AFRICA EXPERIENCES SUMMER, WHAT SEASON WILL IT BE IN THE ASIAN PACIFIC COUNTRIES ?

7. WHICH OF THE FOLLOWING IS A LARGE RIVER IN PACIFIC ASIA ?

○ MISSISSIPPI
○ AMAZON
○ CHANG JIANG

8. WHICH OF THE ASIAN PACIFIC COUNTRIES IS THE BIGGEST IN TERMS OF POPULATION NUMBERS ?

9. DO YOU REGARD THE ASIAN PACIFIC COUNTRIES AS SPARSELY OR DENSELY POPULATED ?

10. WHICH OF THE FOLLOWING PEOPLE WOULD YOU PREFER AS A NEIGHBOUR ?

○ ASIAN

19. WHICH MODE OF TRANSPORT WOULD YOU USE TO GET THERE ?

○ MOTOR CAR

○ SHIP

○ TRAIN

○ AEROPLANE

20. WOULD YOU LIKE TO STAY IN ONE OF THESE COUNTRIES FOR 5 YEARS OR LONGER ? GIVE REASONS FOR YOUR ANSWER .

YES/ NO ....

21. WHAT IS THE UNIT OF CURRENCY IN JAPAN ?

....

22. ON WHICH CITIES WAS THE ATOMIC BOMB DROPPED IN 1945 ?

....

23. WHERE DID YOU GET YOUR KNOWLEDGE OF THE ASIAN PACIFIC COUNTRIES ?

○ TELEVISION

○ NEWSPAPERS

○ RADIO

○ MAGAZINES

24. WHICH ASIAN PACIFIC COUNTRY DID YOU STUDY AT SCHOOL ?

....

25. WHAT POLITICAL EVENT OCCURED RECENTLY IN CHINA ?

....

26. WITH WHICH OF THE FOLLOWING COUNTRIES DOES SOUTH AFRICA HAVE STRONG TRADING RELATIONS ?

○ TAIWAN

○ USSR

○ NORTH KOREA

27. WHAT DO YOU THINK ARE THE ATTITUDES OF THE ASIAN PACIFIC COUNTRIES TOWARDS SOUTH AFRICA ?

....

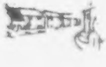
28. WHAT DO YOU LIKE OR DISLIKE ABOUT THESE COUNTRIES ?

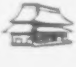
....

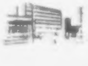
29. WHAT MANUFACTURED GOODS DO YOU ASSOCIATE WITH HONG KONG ?

....

30. WHICH OF THE FOLLOWING BUILDINGS DO YOU ASSOCIATE WITH THE PACIFIC ASIAN COUNTRIES ?





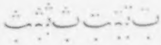


- ○ EUROPEAN
- ○ AFRICAN

11. DO YOU REGARD THE ASIAN PACIFIC PEOPLE AS : (For each answer mark [✓] your choice)

○	TALL	SHORT
○	HARDWORKING	LAZY
○	RICH	POOR
○	WARLIKE	PEACEFUL
○	BACKWARDS	PROGRESSIVE

12 WHICH OF THE FOLLOWING IS CHINESE HAND WRITING?

 ٠٩٨٧٦٥٤٣٢١ 请送我去燕山饭店

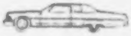
....

13 WHAT DO YOU REGARD AS THE MOST IMPORTANT AGRICULTURAL CROP IN PACIFIC ASIA ?

....

14 WHICH OF THE FOLLOWING CARS ARE MADE IN JAPAN ?

- ○ MERCEDES BENZ
- ○ TOYOTA
- ○ PEUGEOT
- ○ FIAT



15 JAPANESE CARS ARE POPULAR IN SOUTH AFRICA; WHICH OF THE FOLLOWING DO YOU REGARD AS THE MOST IMPORTANT REASON ?

- ○ GOOD QUALITY
- ○ AVAILABILITY
- ○ PRICE
- ○ SHAPE

16 WHAT DO YOU REGARD AS THE DOMINANT POLITICAL SYSTEM IN PACIFIC ASIA ?

....

17 WHAT TYPE OF RELIGION IS DOMINANT IN PACIFIC ASIA ?

- ○ BUDDHISM
- ○ ISLAM
- ○ CHRISTIANITY

18 IF OFFERED AN OPPORTUNITY TO GO ON HOLIDAY, WHICH OF THE ASIAN PACIFIC COUNTRIES WOULD YOU MOST LIKELY VISIT AND WHY ?

....

General Papers

TEACHER DEVELOPMENT FOR ENVIRONMENTAL EDUCATION: CURRICULUM PLANNING FOR A MASTER OF ENVIRONMENTAL EDUCATION PROGRAM AT GRIFFITH UNIVERSITY

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The preparation of teachers has been recognized by successive UNESCO-UNPO conferences as a major priority for research and action in promoting environmental education. The continuing in-service education of teachers is particularly important as the attitudes and skills of teachers are central in determining the mix of different knowledge, skill and affective objectives in environmental education and the social and political interests they served. If environmental education is one of the social agencies through which the transformation to an ecologically sustainable society is to be achieved, then the roles of teachers as change agents is vital.

Yet, there are many barriers to the adoption of such a role by teachers. For example, one study reports that teachers feel quite unqualified to teach environmental education and that they believe that they lack logistical support in terms of resources, time and suitable class sizes. Few teachers understand the socially critical nature, scope and objectives of environmental education and believe that it to be more appropriate to the science curriculum than to their areas of curriculum concern. Another barrier relates to the institutionalized practices of many schools which run counter to the interdisciplinary, issue-based, and values and action oriented characteristic of environmental education. Additionally, many teachers received their education and pre-service training long before interdisciplinary courses in environmental studies were available and before socially critical approaches to teacher education which have the potential to empower teachers to work for constructive social change were developed. Another barrier is the contrast between the practical classroom theories of many teachers, which stress academic knowledge, didactic teaching and classroom theories of many teachers, which stress academic knowledge, didactic teaching and classroom order, and the more progressive pedagogical theory

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underlying value transformation and social change goals of environmental education.

These barriers indicate some of the concerns and skills that must be addressed in the continuing in-service education of teachers for environmental education. They also indicate the practice-based nature that must characterize such programs and the focus on personal and professional development that must underlie their goals.

The Division of Australian Environmental Studies at Griffith University (Brisbane, Australia) is in receipt of a grant from the DEET Priority (Reserve) Fund to develop the curriculum for a coursework Master of Environmental Education program for teachers and other environmental educators. The course will be taught over three years with students studying eight coursework units over the four semesters of the first two years. The eight coursework units will comprise four in environmental studies and four in environmental education. A 20 000 word dissertation will be written in the third year. Students who choose not to undertake the dissertation will receive a Graduate Diploma of Environmental Education. The first intake of students will be in 1991 and it is planned that the course be offered in a full-time mode soon after.

This seminar will describe the processes involved in the development of this course but will focus mainly on issues that have arisen in the development of the course and will invite the assistance of participants in the evaluation of the "intended curriculum" for the course, and their advice on ways of overcoming any implementation problems that they foresee. Questions that have arisen in the curriculum development process to date include:

1. Should the goals of the course promote one approach to environmental education, i.e. the socially critical approach of education *for* the environment, when the societal and institutional contexts of teaching and the practical classroom theories of teachers favour education *in* and *about* the environment?

2. How can a practice-based approach to tertiary studies which will involve sustained reflection on, and critique of, their social and educational values and practices be explained to students who are seeking a "higher degree" rather than a "personal and professional development experience"?

3. To what extent can the needs of environmental educators in the formal and informal educational sectors be served by the same course?

4. Is the balance of four units in environmental studies and four in environmental education the right mix? Is it important if the pedagogical approach adopted by lecturers in the environmental studies units have a greater focus on presenting knowledge and skills and do not reflect the values and social action goals of education *for* the environment which will characterize the pedagogical approach in the environmental education units?

AN AMERICAN INSTRUCTIONAL MATERIALS PROJECT FOR SECONDARY SCHOOLS

David Hill
University of Colorado at Boulder

Abstract

The Center for Geographic Education in the Department of Geography, University of Colorado, Boulder, is developing instructional materials for secondary students. The project is building on a structure used by a video series program called "Global Geography." Designed to meet a national need for geography materials, the Center's materials stress inquiry, critical thinking, and fundamental geographic themes and key ideas. A model is developed that may be used to create modules focusing on questions, topics, or regions, but the Center's materials focus on the use of questions as organizers. The model is used in this paper to illustrate sample characteristics of Asian Pacific modules.

Introduction

The Center for Geographic Education (CENGED) in the Department of Geography at the University of Colorado at Boulder is developing new instructional materials to encourage active and comprehensive learning in geography for secondary students. The project aims to: (1) address the increasing national demand for geographic education materials; (2) offer alternatives and supplements to standard textbooks; (3) initiate an on-going national materials development process; and (4) extend the use of existing materials to maximize a major investment by schools in 42 states and provinces. The materials are being designed to develop critical thinking through geographic problem-solving while probing fundamental geographic themes, concepts, and issues.

The CENGED materials build on the structure used for the videotapes called "Global Geography," a new program produced and

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disseminated by the Agency for Instructional Technology. That structure is based on major geographic themes and concepts that are keyed to important global issues. The instructional materials being produced probe the themes much more extensively than can be done with only the existing videos and Teacher's Guide.

The current national social studies curricular pattern helps guide the project (e.g., National Council for the Social Studies 1989). In addition, the project strongly aligns with new recommendations coming from the National Commission on Social Studies in Schools (Curriculum Task Force 1989). The project is also guided by learning outcomes found in Guidelines for Geographic Education (Joint Committee for Geographic Education 1984). The project will conduct extensive classroom testing of the materials, but that aspect is not covered in this paper for lack of space.

The Growing Need for Materials

A nationwide concern about inadequate geographic education has created new conditions and demands that have not yet been adequately addressed (Hill 1989). Demand for geographic education is far outstripping supply. To give only one example, the Denver (Colorado) Public Schools offered only 20 sections of high school geography in 1985, but in 1989-90 they were offering over 100 sections without any significant increase in teachers trained in geography.

Reports of national commissions and other surveys concerned with inadequacies in America's educational system have focused upon lack of preparation in geography, foreign languages, and other fields leading to international understanding. These concerns were reiterated in a recent report from National Assessment of Educational Progress (1989): Students fared poorly in global knowledge and showed weak understanding of important geographic skills and concepts. Several other surveys (e.g., Gallup 1988) highlighted pervasive ignorance of geography in America, and respected leaders (e.g., Gardner 1986) and institutions (e.g., National Governors' Association 1989) have called for geography's reestablishment in the curriculum.

One result of this increasing attention is that new geography requirements have been set in several states (Hill and LaPrairie 1989). Moreover, a survey of state education agencies indicated that the public schools in 41 of 56 U.S. states and territories intend to require more geography (Council of Chief State School Officers 1988). Also, geography is one of the two major perspectives recommended by the National Commission on Social Studies in Schools for the nation's future social studies curriculum (Curriculum Task Force 1989).

The Geographic Education National Implementation Project (GENIP), formed in 1985, was the first joint venture of all four national geographic organizations--National Council for Geographic Education, Association of American Geographers, American Geographical Society, and National Geographic Society (NGS). The latter formed its Geographic Education Program, and in 1988, it established an Education Foundation (Elliott 1988). The Program's centerpiece is a network of state-based geographic alliances, which are now active in 34 states. Coordinated by academic geographers, the alliances work at the local level with classroom teachers, academic geographers, educators, administrators, and other citizens to promote geographic education in the schools of their respective regions. Each summer NGS-sponsored institutes train hundreds of teachers (over 900 in 1989) in Washington, D.C. and in the Alliance states. These institute graduates, in turn, give continuing education workshops, so that the impact of the programs are multiplied to many thousands more teachers.

Unlike the 1960's when the High School Geography Project was underway, new developments in geographic science are not now being adequately translated into educational materials. Although commercial publishers are beginning to respond with new and revised textbooks, this does not fully address the instructional materials problem because textbooks do not meet all of the important materials needs of solid science education. Ideally, the CENGED project's instructional materials will lead publishers to produce new, more inquiry-oriented and issue-based products. Furthermore, CENGED seeks to establish an ongoing process to narrow the gap between the frontiers of geographic knowledge and the status of geographic learning in American schools.

Instructional Materials Design

The CENGED project engages geographers, educators, and classroom teachers in a program to develop materials having a number of characteristics (Fig. 1).

The new materials are to be inquiry- and issue-oriented and data-based. They must build critical thinking skills and address attitudes and values. The widely adopted "five fundamental themes" in geography (Joint Committee on Geographic Education 1984; Committee on K-6 Geography 1987; Committee on 7-12 Geography 1989; Hill and McCormick 1989) are explicitly reinforced. This approach is consistent with a new science education program of the American Association for the Advancement of Science that stresses learning a small set of basic concepts in depth by probing them from a variety of perspectives (Rutherford 1989).

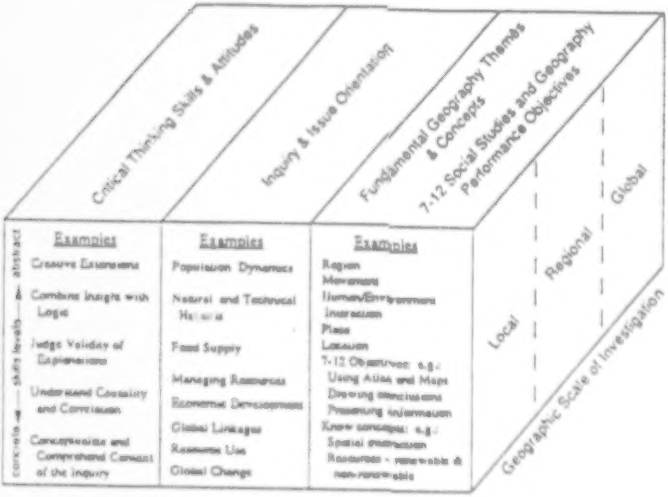

Critical Thinking Skills & Attitudes
Inquiry & Issue Orientation
Fundamental Geography Themes & Concepts
7-12 Social Studies and Geography Performance Objectives
Global
Regional
Local
Geographic Scale of Investigation
concrete ← skills levels → abstract
Examples
Creative Extensions
Combine Insights with Logic
Judge Validity of Explanations
Understand Causality and Correlation
Conceptualize and Comprehend Content of the Inquiry
Examples
Population Dynamics
Natural and Technical Hazards
Food Supply
Managing Resources
Economic Development
Global Linkages
Resource Use
Global Change
Examples
Region
Movement
Human/Environment Interaction
Place
Location
7-12 Objectives: e.g.:
Using Atlas and Maps
Drawing conclusions
Presenting information
Know concepts: e.g.:
Spatial interaction
Resources - renewable & non-renewable

Figure 1. Model for CENGED Instructional Materials)

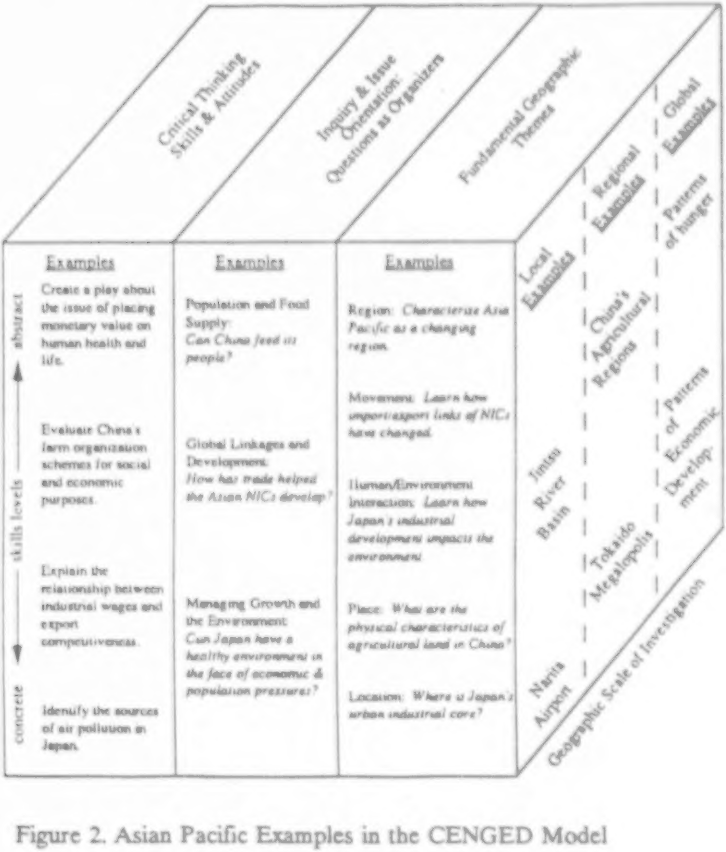
CENGED's materials have three characteristics to encourage their widespread use. First, they provide for the development of themes, concepts, skills, and issues at various degrees of depth, which allows for their use both over several grade levels (6-12) and over varying lengths of time at a grade level. Whereas the "Global Geography" videos are best suited for grades 7-9, CENGED's materials expand the conceptual framework of the video series for use in high school courses.

Second, a modular design facilitates both the infusion of the materials into other courses as well as the option of linking the modules together to form the basis of a separate geography course. The infusion of geography into other subjects, especially history, in the American curriculum is a major theme in recent discussions among social studies and geographic educators (e.g., Salter 1989). These discussions also produce strong arguments for separate geography courses (eg, Marran 1989; Crampton & Lanegran 1989).

A third characteristic is the provision for local development. Issues having important geographic dimensions abound in virtually every community, and most of these issues may be studied in varying depth at several grade levels. The CENGED materials facilitate the incorporation of local issues into the curriculum.

Asian Pacific Examples

CENGED's instructional materials model may be used to show sample characteristics of Asian Pacific modules (Fig. 2). The model (Fig. 2) may be used, as it is here, to exemplify several dimensions of the CENGED materials or it may be used to struc-


Critical Thinking Skills & Attitudes
Inquiry & Issue Orientation: Questions as Organizers
Fundamental Geographic Themes
abstract
skills levels
concrete
Local Examples
Jintsu River Basin
Narita Airport
Regional Examples
China's Agricultural Regions
Tokaido Megalopolis
Global Examples
Patterns of hunger
Patterns of Economic Develop-ment
Geographic Scale of Investigation

Examples

Create a play about the issue of placing monetary value on human health and life.

Evaluate China's farm organization schemes for social and economic purposes.

Explain the relationship between industrial wages and export competitiveness.

Identify the sources of air pollution in Japan.

Examples

Population and Food Supply: *Can China feed its people?*

Global Linkages and Development: *How has trade helped the Asian NICs develop?*

Managing Growth and the Environment: *Can Japan have a healthy environment in the face of economic & population pressures?*

Examples

Region: *Characterize Asia Pacific as a changing region.*

Movement: *Learn how import/export links of NICs have changed.*

Human/Environment Interaction: *Learn how Japan's industrial development impacts the environment.*

Place: *What are the physical characteristics of agricultural land in China?*

Location: *Where is Japan's urban industrial core?*

Figure 2. Asian Pacific Examples in the CENGED Model

ture a particular module. Such a module is perhaps best focused on a single organizing question (e.g., Can China feed its people?) because of the strong learning rationale for organizing instructional materials around questions (e.g., Slater, 1982). A module might also have a topical focus (e.g., population and food supply in China), an approach that may be less inquiry-oriented than the former. A regional module (e.g., Asia Pacific) is a third, but perhaps least satisfactory alternative because of the difficulty of offering an intellectually satisfactory regional geography in a 2-week module. Moreover, this latter approach is likely to be the least inquiry-oriented of the three. It is possible, of course, to combine these approaches in various ways.

No single module can possibly incorporate all desired characteristics, but it is important that each module is inquiry-oriented, helps students develop critical thinking skills, and teaches fundamental geographic themes and key ideas.

Conclusion

CENGED's instructional materials development project for secondary schools responds to a growing national need. New efforts by the major geographic professional groups in the United States as well as a general concern for better geographic education are creating new requirements for geography and new opportunities for continuing teacher education, all of which are creating the need for materials.

The Center's materials model calls for several important characteristics, including an inquiry-orientation, development of critical thinking skills and attitudes, fundamental themes and key ideas in geography, and attention to social studies learning objectives. The model can be applied at any geographic scale, and can also be used to create modules focusing on questions, topics, or regions. The Center's modules utilize questions as organizers, which serves best the desired inquiry-orientation.

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GEOGRAPHY AND HAZARD EDUCATION: SAME CONTENT, DIFFERENT AGENDAS

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Introduction

Across the world, disasters stemming from natural hazards such as earthquakes, tsunamis, volcanic eruptions, landslides, avalanches, cyclones and other windstorms, floods, wildfires, drought and locust Infestation kill more than one million people each decade, leave others destitute, and cause huge economic losses. Among the disastrous events in the last few years, many of them in Asia, each of the largest - a typhoon in Bangladesh and an earthquake in China - has claimed hundreds of thousands of lives. The toll from disasters is particularly severe in developing countries which suffer ninety percent of the deaths and have often had their development goals set back years or decades. With population growth and urbanisation leading to ever more disaster-vulnerable development, the risk of even greater tragedies is increasing.

This is the context in which the committee setting the agenda for the United Nations International Decade for Natural Disaster Reduction described the current need for global action as "a moral imperative" (Press, 1989). In this first year of the decade it is appropriate to consider the relationship between geographical education and education for natural disaster reduction as promoted by the hazard management community.

The forces of nature, natural events such those listed above which are potentially hazardous to human beings, have comprised the content of geography courses almost since the subject's inception. Most geography courses include at least some reference to "the physical basis of geography". Most of us have learned about and taught the origins of igneous rocks, faulting, rift valleys, cyclones and the formation of thunder clouds at some time in our careers. Frequently, situations In which extreme current examples of these natural processes have impinged on human systems with disastrous

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results are used by geography teachers to arouse their students'interest and motivation (Valussi, 1984). Outside the area of physical geography, the apparent vulnerability of certain areas of the world to extreme natural events may be used to explain differences between countries in terms of their "development" while courses which adopt a regional approach often include reference to "hostile environments".

At first glance, It would appear that the contribution of geography to the education of our citizenry In hazard related matters is beyond question. However, the purpose of this paper is to show that, while the subject matter of the two educational endeavours may be similar, their ideologies, aims and objectives may differ. Furthermore, there may even be disparities within the ranks of those who devote their lives to each of the two areas which reduce their effectiveness in promoting disaster mitigation still further. Handmer (1985) reminds us, the assumption that education causes awareness (attitude change) causes (correct) behaviour underlies most public education efforts and Is intuitively appealing, but in practice the linkage has often been shown to be absent (Saarinen, 1979, Mileti et al. 1975, Handmer, 1979).

It is suggested that, if geographical education is to make a useful contribution to the public education aspect of hazard mitigation, both geography teachers and hazard managers will need to understand their mutual differences in agendas and ideologies. Finally, it will be suggested that recent discussions on the methods and purposes of environmental education may provide guidance to future approaches.

Examining the Differences in the Agendas and Ideologies of Hazard Managers and Geography Educators.

At the simplest level, we may assume that the primary purpose of the public education efforts of hazard manage is to reduce the potential for loss of life and property as a result of hazardous events. One approach to achieving this aim is for hazard managers to determine which actions by the populace are most likely to mitigate the likelihood of a disaster and then to promote such actions through all means available to them. These may include advertisements and public drills, as well as attempts to influence school curricula and direct approaches to school pupils by visiting hazard managers. The approaches may range from direct instruction to attempts to enlist pupils in the task of creating a safer world. By the very nature of their role in society, however, it is very unlikely that hazard managers will advocate an approach to hazard mitigation in which the "expert" does not loom large. In terms of their ideology, hazard managers are likely to be numbered amongst the "technocrats" of society.

Geography teachers may also adopt a variety of approaches to their task. They may perceive their role as being to promote the academic study of geography within the context of the sub-disciplines (physical, human, environmental) of the subject. In the context of hazards and disasters, the assumption may be made that awareness of the physical causes of hazardous events and the potential effects on human systems is sufficient for pupils to seek out, or create their own, mitigation strategies when appropriate. However, they may also see their role as helping pupils to develop a knowledge and expertise in a wide variety of social, political, economic and environmental issues that relate to people's interaction with their world. Such teachers may acknowledge the implications of hazard mitigation to all these areas, while adopting either liberal or socially critical approaches to their analyses. In the case of hazard mitigation, it is likely that a liberal approach will closely approximate a technocratic orientation while a socially critical one will tend towards the humanistic.

Before discussing the attitudes of the hazard management and geographical education communities to hazard mitigation and public education, some greater detail on the technocratic and humanistic ideologies may be appropriate. The account that follows is based on the premise (after White, 1974) that an extreme natural events only becomes a hazard when it threatens to impinge on some human system (i.e. it moves on from being part of our phenomenal environment to become part of our behavioural environment) and a disaster when it impinges on our behavioural environment to the extent that " a society or a community undergoes severe danger and incurs such losses to its members and physical appurtenances that the social structure is disrupted and the fulfilment of all or some of the essential functions of the society is prevented" [United Nations, 1987, 1). Thus, ideologies of hazard management are essentially ideologies of environmental behaviour.

Environmental Ideology and Hazards

Miller (1985) defines an ideology as a set of beliefs and values with political intent. Thus an environmental ideology provides an individual with general guidelines with which to respond to environmental issues. Miller cites various researchers including Cotgrove (1982) who have identified two opposing orientations to orientation. Figure 1 illustrates the broad differences between these two groups. In summary, those who hold a technocratic ideology appear to accept centralised rule by experts, believe in mastery over nature and regard taking risks as a necessary precursor to receiving rewards. They place their greatest faith in scientific rationality and prefer to keep matters of fact separate from matters of values.

Holders of a humanistic ideology, on the other hand, emphasise decentralised, participative, decision making and place emphasis on maintaining harmony with nature. These people distrust positivist science and the presumption that facts can be value-free.

In the context of natural hazards, it may be expected that these two groups of people will differ in their approaches both to the assessment of risk and to procedures designed to minimise the risk of a natural hazard leading to a natural disaster. Technocrats will propose "hard headed" rationality with decisions being made on the basis of technical-factual information by experts exercising their technical judgement. On the other hand, humanists will argue for a broader context for discussion incorporating social-political-ethical matters and allowing for genuine public participation in decision processes (Bus and Craik, 1983; Cotgrove, 1982, cited in Miller, 1985). Furthermore, they will argue for greater cognisance to be placed on perceived risk rather than on quantitative assessments.

Since the ideological distance between these two groups is considerable, any evidence that geography educators and hazard managers hold different views would suggest that communication between them is likely to be difficult and that attempts to meet the needs of both through co-operation are unlikely to be entirely satisfactory. This paper will now investigate the apparent ideological positions of both geographical educators and hazard managers towards education in hazards to the public in general and the school community in particular.

The Place of Natural Hazards in Geographical Education

From the domain of geography, Paterson (1985) states that "within geography, hazards are an integral part of the man-environment relationship". He explains, after Burton, Kates and White (1978), that the interplay between natural and human systems produces both opportunities (resources) and constraints (hazards), with the constraints limiting the development of resources. Developing the topic within the people-environment paradigm of geography, he cites work by Sorensen and White (1980) to show that the hazards themselves can be conceived not only in terms of constraints or costs

	Environmental Ideology	
	Technocratic	**Humanist**
Core values	Material (economic growth) Natural environment valued as resource Domination over nature	Non-material (self-actualisation) Natural environment intrinsically valued Harmony with nature
Economy	Risk and reward Rewards for achievement	Safety Incomes related to need
Polity	Authoritative structures: (experts influential) Hierarchical Law and order	Safety Incomes related to need Participative structures: (citizen/worker involvement) Non-hierarchical Liberation
Society	Centralised Large-scale Associational	Decentralised Small-scale Communal
Nature	Ample reserves Nature hostile/neutral Environment controllable	Earth's resources limited Nature benign Nature delicately balanced
Knowledge	Confidence in science and technology Separation of fact/value, thought/feeling	Limits to science Integration of fact/value, thought/feeling

Figure 1 Environmental ideologies (Miller, 1985)

but also in terms of benefits. Examples include the benefit of human occupancy of risk areas such as the fertile soils on the flanks of Vesuvius or Etna direct benefits from a disaster such as silt deposited by floods and the rain brought to drought stricken areas of Australia when a cyclone crosses the coast; and the benefits of greater social and community cohesion.

Oliver (1982) analysed the place of natural hazard studies in geography teaching at school level (Figure 2). He claimed that natural hazards represent an integral part of any analysis of the interrelationship between natural phenomena and human socio-economic systems and even went so far as to suggest that some environmental relationships that occur in a muted and less readily identified manner under average conditions may become more clearly highlighted in extreme situations. Furthermore, he claimed that since human beings and nature interact so intimately in natural hazard studies, such studies provide a counter to tendencies to polarise thinking towards physical or human approaches to geography teaching.

While there is no doubt that the analysis of hazards according to such a structure constitutes excellent geographical training that would place students in a good position to make appropriate decisions for their own community, it is doubtful whether many geography programmes at secondary level approach the depth suggested by Oliver.

Pending more detailed studies of the ways in which natural hazards are taught in various countries of the world, evidence must be sought from the published literature on teaching strategies on hazards and disasters. No claim is made that the examples described below are representative of the strategies being applied in geography classrooms, but they may reveal the general direction of thought of those who write for a teacher audience.

An examination of *Teaching Geography* journal in the U.K. revealed twelve articles on natural hazards published from January 1980 to December 1989. Figure 3 summarises a simple analysis of these articles. The range of hazards discussed is wide, but eight of the twelve are descriptive of the causes and consequences of hazards rather than presenting teaching strategies for classroom use. In terms of promoting mitigation strategies, Knapp (1983, 1984, 1985) and Williams (1985) describe attempts to mitigate the hazards and point out problems which have resulted from adopting structural or technocratic solutions. Thus Williams (1985) concludes his article:

The geographical study of a natural hazard should include:

1. **An analysis of the potentially threatening physical event.**

   This includes its location, intensity, areal extent, movement, duration, timing and other qualities that can seriously disturb normal human lifestyles.

2. **The identification of other physical circumstances which may modify the behaviour of the hazard and the severity of its impact.**

3. **An analysis of community social structure.**

   This includes a diverse set of factors that influence:

   (a) the potential for disruption
   (b) the pattern and prospect of response, and
   (c) the nature of counter-disaster planning:
      — the population involved, including demographic characteristics of age, sex ratios, education, mobility, religion and ethnic qualities
      — the relative proportions of rural and urban communities
      — the complexity of the social, political and economic systems and their degree of integration and independence
      — cultural traditions, community objectives and values.

4. **An analysis of the economic system.**

   This includes the activity patterns that are most vulnerable and the economy's capacity to withstand severe disruption of normal work. It depends on:

   (a) the level of technological infrastructure, from self-reliant, subsistence systems to high technology interdependent societies;
   (b) the nature of the resource base including the availability of special resources required to deal with a disaster and the ability to cushion the effects of a disaster by financial or other reserves.

5. **A study of environmental sensitivity.**

   This includes the community's awareness, perception and understanding of hazard threats; its inclination to plan to minimise possible hazards and its capacity to translate these inclinations into appropriate management plans.

Figure 2 Natural hazard studies in Geography

Date	Hazard event	Author	Type	Ideological Assumptions		
				Humanistic	Status Quo	Technocratic
Nov '81	Volcanic eruption	Woollen	T		•	
Oct '83	Floods	Knapp	D	•		
Jan '84	Coastal floods	Knapp	D	•		
Jan '85	Landslip	Knapp	D	•		
Jan '85	Permafrost	Knapp	D		•	
Apr '85	Coastal landslip	Williams	D	•		
Jan '86	Hurricanes	Duffield & Hardcastle	T			•
Oct '86	Lightning	Senior	D		•	
Oct '87	Wildfire	Wrathall	D		•	
Oct '87	Earthquake	Winskill	T			•
Oct '87	Avalanche	Gerrard	D		•	
Apr '89	Newspaper reports	Wrathall	T		•	

Legend: T: Teaching activity
D: Description of Hazardous event

Figure 3 Natural hazard articles in "Teaching Geography", 1981-1989

> "Coastal processes are very complex and past endeavours to control erosion have frequently left much to be desired. One has only to look at the numerous Victorian vertical sea walls along the UK coastline which 'protect' many seaside resorts to realise this folly. ... Unfortunately we have inherited many cumbersome structures (viz. sea walls} and human settlements have imposed themselves in areas where no permanent settlement should occur. ie., barrier islands. One can never 'beat the sea'. We can hold back the geomorphological processes for a while but Man does have a tendency to enhance nature's erosional processes."

Six of the twelve articles make no reference to activities which may contribute to pupils' understanding of hazard mitigation, while in terms of their ideological stance, it appears that four may be described as humanistic (or at least non-technocratic). Two articles specifically promote structural or technocratic solutions.

Of the four articles which present teaching strategies for classroom use, none promotes a humanistic ideology to hazard mitigation. Winskill (1987) introduces a teaching simulation on "earthquake!" with the following statement:

> "The second year syllabus at Theale Green School includes the study of 'internal earth movements and their effects on Man'.... As well as using the more usual resources such as slides, pictures and imaginative writing, I decided I would like to try and involve pupils a little more closely with the problems faced by people living in, for example, earthquake zones."

In the simulation which follows this statement, pupils are asked to adopt the roles of 'Chief of Police', 'Fire Brigade Chief', 'Medical Services controller' and 'District Mayor'. The reasons for this emphasis on 'experts' and the responsibilities and rights of citizens are not considered or discussed.

From this evidence of geography teaching about hazards in the U.K it appears that students may well be left with an impression that technocratic or structural responses to hazards may be either the most appropriate, or the only, approach to mitigation.

In the United States, a number of articles have emphasised the importance of the acquisition of geographical skills in developing awareness of local hazards. Cross (1988) states that "students should be introduced to hazard maps as early as possible. The introduction of maps showing local hazards might be a first step in teaching school children and their parents about specific local hazards and appropriate responses". He cites Vitek and Berta (1982) who found that many students were unaware of natural disasters which had devastated their neighbourhoods several decades earlier and McKay (1984) who found that many floodplain residents in Australia who received flood maps did not read them. Cross suggests that "the use of hazard maps as teaching tools not only helps disseminate information but also assures that students learn to examine maps carefully".

Enabling pupils to develop a sense of personal responsibility for hazard mitigation is also presented as an educational aim for geography by Butler (1988) and Barber (1988) who justify the inclusion of snow avalanches in geography courses by reference to the significant number of fatalities caused worldwide and the hazards faced by those who visit mountain areas in winter for recreation. Barber's "Teaching Ideas" include developing map skills by encouraging students to prepare maps of mountainous areas to show the likelihood of avalanches occurring and to suggest safe responses to various mountain situations.

The ubiquity of natural hazards and the ever increasing mobility of the earth's people are also cited as reasons for teaching about extreme natural events by Harris (1980) and Anderson (1987).

Harris draws to our attention that "each year in the U.K. hundreds of people lose their lives, and thousands more lose their homes and , millions of dollars in property to geological disasters that are beyond their control....... As the demand for housing leads to construction in marginally stable areas, we can only expect the toll in lives and property to mount. .... By teaching students to recognise the very forces that created "that beautiful view" we may help them to protect what may be the largest financial investment they will ever make". Writing of her home state of California, she suggests that "in addition to knowing what to do if an earthquake strikes, students should be alert to requirements for safe housing in earthquake-prone areas". She explains that "inquiry-based investigations can involve students in evaluating their own home sites for seismic safety by researching soil type, proximity to earthquake faults, topography, and type of housing construction. Students can also investigate building codes and restrictions dealing with earthquake safety on local and state levels." Harris concludes her examination of a wide range of geological hazards by stating: "As teachers, we have the chance, and I feel the duty, to make our students aware of the dynamics of the earth and the effects that geology will have on their future. By doing so, we help put them on the road to becoming responsible citizens". Although Harris approaches the whole issue of hazard mitigation from the standpoint of a physical scientist, she appears to be promoting attitudes in her students which lie closer to a humanistic than a technocratic ideology.

Anderson (1987) describes some of the teaching strategies at university level he adopted in the aftermath of the Mount St. Helens volcanic eruption of 1980. He approached the event from a social science perspective in a human geography class and describes his aims as follows:

> "Earthquakes, floods, hurricanes, tornadoes and other extreme natural events occur with sufficient frequency and predictability that most of our students experience them in some form at one time or another. As traumatic as some of these experiences may be, they should be exploited as important opportunities for learning. Most catastrophic events that strike communities should be given temporary precedence over the normal curriculum in order to help students understand the causes, consequences, and recovery alternatives, as well as to allay whatever trauma, fear of recurrence, and general fear of isolation and helplessness that might accompany such an event."

These American examples also imply that students may be encouraged to look towards structural and technocratic responses to hazards, although they would also perceive a much greater emphasis on the need for individuals to Investigate their own vulnerability to disaster.

The final example of teaching strategies to be considered here is published as a "Resource Unit" by the Geography Resource Centre of Christchurch College of Education. Entitled "Living on a fault line - Earthquake hazard in Wellington" (Starkey, 1988), the unit is designed to be used by students in their fifth year of secondary education in preparation for that part of the public examination syllabus in geography which demands that, for a selected natural hazard, "candidates must cover an outline of the processes producing the natural hazard and the sequence of events that occur; the effect of the hazard on the land and people; and the ways people may increase or decrease the likelihood or effects of the hazard." Starkey explains that "The major objective of teaching this topic is to continue to develop the concept of the earth's environment as a dynamic system of continuously changing patterns and processes. Earthquakes provide evidence of a process within this system which people are unable to control. They represent 'natural hazards' that can affect the location of people and their attitudes to their environment".

The suggested lesson sequence embraces thirteen hours of classroom activity and a full day field visit to areas of Wellington which illustrate earthquake effects from the past. Of this, seven classroom hours are devoted to examining the effects of earthquakes on buildings and ways in which damage may be limited. The final activity requires pupils to consider how they would react if an earthquake were to strike Wellington and to react to the question "After the earthquake, the town planners ask for submissions on how Wellington should be rebuilt" and in the event that "Wellington were to be nearly flattened, to consider the implications and constraints from expense, the public response and the various priorities". These final activities allow pupils to react to the situation from the standpoint of their existing environmental ideologies.

Although neither representative nor inclusive, these examples of approaches to teaching about natural hazards illustrate the ranges of both ideologies and teaching agendas advising the community of geographical educators. They may be represented as a number of polarities. Approaches to hazards in geographical education may be seen as advocating or accepting positions along continua between:

Humanistic ideology - technocratic ideology
Geo-physical emphasis - human response emphasis
Structural mitigation - non-structural approaches to mitigation
Hazards as a vehicle - geography as a vehicle for geography teaching for hazard-mitigation

The examples described above suggest that, despite the broad analysis suggested by Oliver (1982), the emphasis in geography remains on description of hazards, development of geographical skills such as mapping in a hazard context, and learning about government ordinances and building codes and relating them to town planning and construction.

While teaching strategies at the poles of each of the orientations listed above have potential for promoting hazard mitigation in our communities, it may be suggested that some approaches will be more effective than others. The writer's own preference must be expressed for a geography course designed to promote hazard mitigation designed around a humanistic ideology and emphasising non-structural human responses to the natural environment.

However, while this may be regarded as some kind of ideal from the geographical education viewpoint, it may be seen as less than ideal by some in the hazard management community.

The Perspective of the Hazard Management Community

As stated above, the educational concerns of the hazard management community at the simplest level, is to reduce the potential for loss of life and property as a result of hazardous events. However, it has also been suggested (after Miller, 1985) that such concerns may be mediated through a technocratic ideology which assures that it is the role of the expert to determine which actions by the populace are most likely to mitigate the likelihood of a disaster and then to promote such actions through public education. If this is indeed the case, then it may be expected that such an approach may be in conflict with some members of the geographical education community whose practice is guided by a more humanistic ideology while contributing little to the geographical aims of those whose emphasis is on promoting mapping and other skills.

The approach to public education adopted by the community of hazard managers may be discerned from two major sources. The first and most readily available is the range of leaflets and posters made available by groups such as state emergency services, civil defence and fire services through information bureaux, mail-box drops, community groups and schools.

The second source is through the publications of such organizations as the League of Red Cross Societies, the World Meteorological Organization and the United Nations Organization.

As a result of the very nature of the medium, leaflets often concentrate on informing the public of appropriate actions in anticipation of a hazardous situation removal of hanging plant baskets, checking radio and flashlight batteries, storing clean water etc. As such they constitute the distilled wisdom of experts and are intended to give useful information in the most readily accessible form possible. Frequently, however, they may offer the additional advice that the public should await further instructions from some kind of "authority" and comply with those instructions. This overtly technocratic stance is also to be found In the more formal publications of the world hazard mitigation community which, particularly in the past, have frequently emphasised the need for the general public to respond to official warnings of impending disaster.

Such a view was stated clearly in Preparedness aspects, Volume 11 in the Disaster Prevention and mitigation series (U.N.D.R.O. 1984). In this volume, the statement is made that "in the interaction between the emergency authorities and the public there must be programmes of education and information designed to ensure that the public will, in time of need, react intelligently and promptly to warnings, and comply with them and with instructions issued by the emergency authorities". The document states that, in relation to disaster preparedness, public education policy must be designed "to education the public to have:

a) Awareness of the hazards to which a population, local or national, is exposed;
b) Awareness of the risks stemming from the existence of those hazards;
c) Awareness of what can be done, both by the public and by the emergency authorities, to prepare for the impact of an unavoidable disaster-causing phenomenon, and reduce its effects;
d) Awareness of what should be done and why it should be done by the public after the impact, to assist the authorities and initiate the recovery process."

This document places a special responsibility on formal education systems to achieve these aspects of public education policy:

> "Possibly the best place to start creating understanding of relevant hazards is the school. Indeed, in some societies where there is a high proportion of adult illiteracy , the child or young person in school may be the only means of communicating more than the simplest concept to adults."

It would be unfair to suggest that public compliance with authority is the only aim of the hazard management community. In the 1977 "Guidelines for disaster prevention and preparedness in tropical cyclone areas" published jointly by the Economic and Social Commission for Asia and the Pacific, the World Meteorological Organization and the League of Red Cross Societies (E.S.C.A.P., W.M.O. & L.R.C.S., 1977). This document states that:

> "Whilst the planning and implementation of disaster preparedness call for formal or official activity, it should be appreciated from the outset that co-operation by a knowledgeable public is indispensable. .... It is therefore essential to engender a spirit of disciplined self-help amongst the population so that people will know what they should do an will know that their own performance is basic requirement for success. However, in emergencies there will arise a host of unforeseen contingencies in which individual members of the public will need to exercise initiative and display their resilience and resourcefulness".

The emphasis on disciplined self-help when disaster threatens rather than on prevention and mitigation at the personal and political level is reinforced later in the document:

> ".... education is the natural complement to the provision of information. An education programme, designed at appropriate levels for children and adults, should impart basic knowledge about the nature of tropical cyclones and the risks involved and about warning services and protective Measures".

Volume 12 of the Disaster Prevention and entitled Series and Social and Sociological Aspects (U.N.D.R.O., 1986)] adopts a broader approach to public education and acknowledges several common problems encountered in disaster awareness programmes: The first of these problems relates to the content of the programmes: "public education programmes are often limited to emergency assistance, first aid and relief issues. While these concerns are critically important, the lack of attention to prevention issues continues to be a major shortcoming". The second problem relates to the scale at which the programmes are offered: "Another weakness arises from the fact that public information campaigns are carried out on a regional or national, rather than on a community basis. This results in disaster Information that is very general and of little practical value in assisting people to know what specific actions must be carried out."

Despite the use of the term "public education" in the section heading, the repeated reference to "training and disaster awareness programmes" still suggests an emphasis on the transmission of elite knowledge:

"An effective disaster awareness programme for the public will:
Be participatory in design;
Be community specific;
Be based on an assessment of the information needed;
Be integrated with existing disaster warning and response systems;
Include information on prevention, mitigation, and long-term recovery;
Be established as an on-going process; and
Include as a priority the most vulnerable people."

This impression is reinforced by the final comment:

"The need for hazard awareness programmes is assessed by the determination of three basic questions:

i) Do people know they live in a hazard-prone area?
ii) Do people know the risks?

iii) Do people know effective ways to reduce such risks?"

In the final chapter of this volume (U.N.D.R.O., 1986) the authors draw a number of conclusions on research priorities for disaster prevention and mitigation. These conclusions focus on examination of both the physical world and the social environment which leads to potentially disastrous situations. Amongst the comments on future research needs are:

> "It will be necessary to redress the imbalance between the overwhelming amount of research being done in the physical sciences and that in the social sciences.
> ... An appreciation of the factors which affect both the public and the private choices of adjustments to hazards is central to the development of effective policies for risk reduction.
> ... We need a better understanding, not only of the way in which people perceive their environment and the risks in it, but of the way different influences affect their actions."

Such comments from the hazard management community draw our attention to the contribution that geographical education, integrating physical and social science modes of thought, can and should make to hazard mitigation. However, the summaries of the ideological stances of the hazard management and geographical education communities above suggest that both, to a greater or lesser extent, lean towards a technocratic approach to natural hazards.

Such a finding might seem to be the end of the matter since this paper began by suggesting that a mismatch between the ideologies of the two groups may be the main cause of ineffective hazard education and the analysis which followed appears to show a degree of consensus. However, that there is so much consensus and that it occurs towards the technocratic end of the ideology spectrum is no cause for self congratulation.

Sims and Baurnann (1984) in an extensive review of research on the effects of educational programs on human responses to natural hazards comment on what they call the 'education causes awareness causes behaviour' myth and assert both its logical flaw and empirical failure. In the context of their review, Sims and Baurnann appear to equate 'education' with 'nowledge' and we may, therefore, not be surprised at their findings that the possession of knowledge does not necessarily have any bearing on behaviour. If human behaviour in the context of hazards is to change, other factors must be considered and these factors may well concern the relationship of human beings with their societies and their environment. It is at this stage that the literature on environmental education may offer guidance on the future of education for hazard mitigation.

Environmental Education

Iozzi (1989) refers to his review of research in environmental education from 1971 to 1982 and notes: "The greatest number of studies dealt, surprisingly, with the affective domain (57.7%) followed by the cognitive domain (41.1%). 'surprisingly' here refers to the fact that in most research in other discipline areas, researchers have tended to focus more heavily on the cognitive domain rather than on the affective domain". This suggests that researchers in environmental education realised the importance of the affective domain in influence people's attitudes and behaviour rather earlier than those in other areas.

Beutler (1988) points out that while environmental knowledge includes understanding the functioning of the ecosystem, the role of humans and the impact of their activities, and knowledge of environmental issues includes understanding the various cultural, ecological, political, economic and moral implications of each issue, it is attitudes and values which will ultimately guide a student's behaviour towards preserving the ecological integrity of the earth. Developing such an environmental ethic, he states, changes our role as conquerors of the land to members and citizens of the land.

The hazard community appears to be reaching similar conclusions. Ruckelshaus (1987) discusses the responsibilities of the general public in decision making in the context of technological risk. He states (p 9):

> "Accepting responsibility for the final decision is the duty of citizenship. If there is a demand to get involved, then people should get involved; but if they are not involved the whole way, then participatory democracy is not working." It appears that Ruckelshaus is here placing the responsibility for seeking participation in decision making on the general public, and although followers of Habermas (1972), Sandbach (1980) and Torgensen (1980) may see Ruckelshaus's suggestions for encouraging public participation as a cynical form of manipulation, we may also accept Miller's (1985) perception that supporters of non-dominant ideologies have a major role to play as critics."

The Rationale for the International Decade for Natural Disaster Reduction (National Academy of Sciences, 1989) reminds us that a high level of environmental alteration often increases vulnerability to disasters and that this may only be mitigated by the sociopolitical will to direct development in a way that enhances collective security (para 39). Furthermore, we are reminded (para 51) that the successful implementation of the decade will require the involvement of all levels of the community, from worldwide down to the local level. With such a statement from the hazard management community to encourage us, surely geographical educators may adopt and adapt the statements from the Tbilisi Conference declaration on desirable characteristics of environmental education to enhance the teaching of hazards in geographical education (UNESCO, 1978). The declaration's desirable characteristics of environmental education may be re-phrased to produce five principles for hazard education through geography. Hazard education may be defined as a process whereby the learner:

- Develops an awareness of those aspects of the natural and human-created environment which have the potential to be hazardous to human communities;
- Develops knowledge about how natural and human environmental systems may be affected by natural hazards;
- Acquires knowledge about the technological, social, cultural, political, and economic relationships occurring in areas prone to natural hazards;
- Develops active inquiry and problem-solving skills along with appropriate values to guide behaviour in dealing with issues of hazard mitigation and collective security;
- Becomes motivated to apply action strategies to maintain a balance between collective security and quality of environment.

As the International Ad Hoc Group of Experts stated in their report to the Secretary General of the United Nations in April 1989: "Knowledgeable and involved people are critical to building a safe society" (Press, 1989). Such sentiments, combined with a broadening of geography's role in promoting the environmental education of our students, provide the bridge between the agendas of hazard managers and geographical educators that is needed if geographical educators are make a useful contribution to the International Decade for Natural Disaster Reduction.

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RESULTS OF THE WORKING GROUP ON EMPIRICAL RESEARCH

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This paper is the continuation of a series concerned with a common research standard in this commission and should serve as an intermediate step towards the publication planned for the IGU congress in 1992. It consists of two parts, firstly relating the results of an experiment with a computer simulation and secondly an overview and analysis of the papers being prepared for 1992.

1. Experiment with the Simulation "hunger in the sahel"

Material: The simulation was presented in four alternative versions, depending on the inclusion of a tutorial (8 pages) and of adaptive aids (32 specific warnings/hints according to the situation in the simulation). This 2x2 factorial design was administered to more than 100 pupils of 13 year old students. A pre-test and a post-test measuring cognitive levels was developed, intelligence subtests and personality tests measuring the dimensions of "space" and "closure" as well as anxiety, self-reliance etc. were employed.

Experiment:

One week before the treatment there was the cognitive pretest; the intelligence and personality tests were administered one week after the post-test. During the treatment the four versions of the simulation were randomly attributed to the students who had 60 mins to learn how to steer a complex ecological model (risk of

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erosion or draught) as well as a complicated agricultural system (different crops to seed, technical measures to be taken). After each collapse of the system the students were encouraged to start again. After this a 30 mins phase of testing was added with a model situation similar to the one of the 4 versions (but without tutorial and adaptive aids). Thus we wanted to measure by the number of successful rounds (years) the practical ability to steer the model. One week later the cognitive test was repeated (post-test) to find out the learning results.

Our hypotheses were as follows:

Tutorial and adaptive aids should produce positive learning effects. Cognitive learning effects should produce good practical steering capability.

Results:

a) Practical ability to steer the model is not correlated with cognitive gains (r=0.01); there is a group of students who do not learn the cognitive objectives of the simulation but still manage to run the game successfully. Our advice is that colleagues inform their pupils explicitly that this is an educational simulation and that pupils should learn something about erosion, climate and agriculture in the Sahel.

b) It can proved over all 4 versions that the simulation produces good learners' effects. Pre-test raw points of 15.6 (mean) were changed to post-test 27.5 points. A simulation of this kind can be well defined as a solid learning occasion.

c) The effects of the 4 versions were different. Best results were reached with version "adaptive aids without tutorial" (28.8 points in post-test). A tutorial before the simulation seems just to impede students who want to do the game - and therefore learn nothing of it and have less time to profit from repeated rounds in the simulation.

d) Best predictors are for the cognitive tests : pre-existing knowledge, verbal factor of intelligence, and logical factor (48% of variance); for the practical capability to steer the model: only self-esteem and self-reliance (7%).

e) The results of the covariance-analyses are as shown in the graphic, figure 1: for the cognitive tests: adaptive aids, and a significant interaction of tutorial and aids.

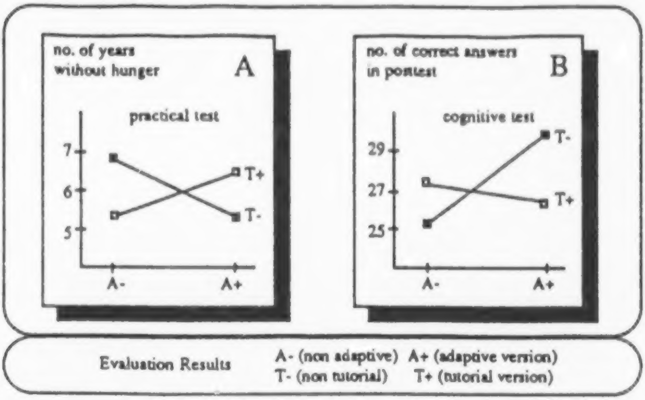

Figure 1 Results of the covariance analysis

Discussion of results:

Computer simulations can be effective teaching material. Surprisingly enough, students can reach a practical capability without learning the geographical objectives. Our advice therefore is to integrate carefully such simulations into the normal teaching activities and to build in adaptive aids rather than tutorials.

2. Overview and Analysis of the Papers for 1992

There has been a good contact between the active members of the working group since the 1988 congress in Brisbane, so that an overview can be given of the papers in preparation for 1992. The contributors and titles are as follows:

1. Fung - "Evaluation of an Educational Game on Conventional Signs and Grid-references."

2 Gerber - "How do Students in Higher Education Perceive Maps?"

3. Trimp - "Learning through Adventures, Flexible Actor-Oriented Computer Simulation as a Means to Differentiated Learning in Geography."

4. Westrhenen, Hoekveld-Meijer, Schee - "Individual Differences and Geographical Education."

5. Leutner - "Complex Aptitude Treatment Interactions with Learning Geographic Concepts and Rules from Computer Simulations."

6. Stimpson - "The Solo Taxonomy and Assessment in Geography."

7. Schrettenbrunner Hess: - "Levels of Difficulty and Frustration with a Computer Based Simulation."

Let us analyse some aspects of these contributions in order to find out if our endeavors to set a common basis and quality level has been successful.

Most of the authors have chosen the experimental design comparing different (3/4/6) learning materials or treatments (authors No. 2,3,5,5,7) which should be standard and are customary to find out the effects of different learning situations, different approaches or cartographic presentations. One author compares the results an experimental group has in a game with a control group (without treatment, author No.1), which also is a good way of finding out the effects of new methodological approaches.

Still another author wants to find out if a specific taxonomy is of any value for geography. This is possible, but does not use an experimental group design.

It is important to note that 5 (of 7) authors investigate in variations of teaching methods, 4 in games or computer simulations and 2 in maps and conventional signs. This means that all authors have in mind research on topics that are relevant for future use in every-day school life.

This can be proved by a short glimpse at the dependent variables chosen in the experiments. All authors measure learning effects (posttest minus pretest scores, cognitive dimensions) and evaluate the effects of their materials, versions or groups. One author tries to go beyond simple quantitative measurements and emphasizes especially qualitative differences within a taxonomy, whereas the others implicitly use different levels without necessarily questioning the theoretical background. It is important to note that there is good reason for chosing learning effects with geographical material (such as maps, computer simulations etc.) because the focus of an educational geography or didactics of Geography should mainly be directed towards the issue how to optimize geographical teaching material.

A closer look at the independent variables used in the papers is necessary because this proves what the authors believe to be the reasons for different learning effects and consider to be manageable by teachers or text-book writers. Here we find:

variations in teaching strategies,
versions of material,
presentation of maps and symbols,

all variables that could really be tackled by the classroom teacher and could lead him to better teach Geography.

But there are also included other independent variables which explain effects through personality or intelligence dimensions, such as attitudes, motivation grade, age, gender, self-esteem, anxiety (towards computers), pupils' interactions etc.

These variables indicate that also a minimum background of general psychological and educational theory serves as a basis.

Finally some remarks about statistical procedures employed. Group comparisons in 2x2 factorial designs using analysis of variance or covariance are mostly named. And it seems that the effects having been undertaken by the working group for years will produce a promising contribution to the congress in 1992.

3. Conclusion

Our contribution (part 1) and the articles in preparation for 1992 might help us to remember some of the important items an empirical analysis should consist of:

- a good theoretical basis (partly on a general psychological or educational background, partly on geographical and presentation modes),
- detailed hypotheses which must be manageable in the experiment (mostly explaining differences in learning effects with geographical material),
- themes of relevance for the teacher,
- an experimental design (usually testing different versions of material, or comparing different groups),
- an adequate statistical procedure to prove the hypotheses (mostly analyses of variance, covariance).

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PEOPLE AND THEIR ENVIRONMENTS
Designing Geography curriculum for the Victorian Certificate of Education

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Abstract

In 1986 the Victorian Curriculum and Assessment Board (V-CAB) was established by the state government of Victoria (Australia) to develop a coherent and comprehensive education for Year 11 and 12. The major educational change affecting the final years of schooling was the introduction in 1987 of the Victorian Certificate of Education (VCE). Geography was included as one of the initial 42 studies identified for development in the VCE. This paper outlines the time line and context for the design and implementation of the VCE Geography study design, 1986-1992. Due to limited space and the complexity of the processes involved in curriculum development, this overview is presented as a gallery of selected, representative documents extracted from primary source material published as a result of VCAB's accreditation processes.

Introduction

Social and educational changes in the seventies and early eighties resulted in increased retention rates of secondary students to Years 11 and 12. In June 1983, the state Minister for Education (Victoria, Australia) established The Review of Postcompulsory Schooling to review then current educational and training provision for fifteen to nineteen year olds not in full-time or part-time courses in higher education or in technical courses associated with employment. The Review published its report - known as the Blackburn Report - in May 1985.

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The Report found that half of all young people in Victoria undertook courses at the upper secondary level which were designed for "a minority of young people intending to proceed to higher education"[1]. As a consequence, the report further contended that ".. there must be a radical reshaping of the present provisions of postcompulsory schooling so that its curriculum, credentials and structures ..."[2] can offer value to both the individual and society. The Blackburn Report went on to outline the changes needed "to make this stage of schooling purposeful and attractive to an increasing proportion of young people in the 1990's and beyond".[3]

VICTORIAN GOVERNMENT

The state government accepted the principal recommendations of the Blackburn Report and in June, 1986 established the Victorian Curriculum and Assessment Board (VCAB), an independent, statutory authority to develop "the postcompulsory education"[4] The major change affecting the final years of school was the introduction in 1987 of the Victorian Certificate of Education (VCE). Besides maintaining the existing program, the major task facing VCAB was the development and gradual phasing in of new studies and assessment and certification arrangements for Year 11 and 12. As shown in the timeline outlined in Figure 1, the new VCE will be introduced in three phases over the period 1989 - 1992.

During the development period from 1986 until phase 1 implementation in 1990, the proposed VCE became the subject of much community debate. A second statement issued by the Minister of Education in November 1989 confirmed that "Inescapable social and economic pressures (have created) demands for a broader curriculum than that represented by the traditional, tertiary-oriented, academic curriculum" and that "The VCE is a much needed reform in Victorian Schooling"[5].

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1. *Ministerial Review of Postcompulsory Schooling: Report vol. 1*, - March 22, 1985 - page 1
2. Ibid
3. Ibid
4. VICTORIAN CURRICULUM AND ASSESSMENT BOARD (VCAB) - *VCE Planning Guide, May Supplement 1989, page 2*
5. Ministerial Statement on the VCE, by the Hon. Joan Kirner, Parliament of Victoria, Nov 17, 1989.

THE VCE - A Comprehensive Curriculum

The new VCE will be a common credential to mark the successful completion of 12 years of schooling. In order to satisfactorily complete the VCE, students will be required to undertake a VCAB-approved program of studies including[6].

- o four units of the common study of English
- o at least four units of Arts/Humanities studies, of which two will be the common units of Australian Studies
- o at least four units of Mathematics/Science/Technology Studies

The remaining twelve units that make up a student program may be drawn from any field or fields of study. Student will be encouraged to plan overall programs that are coherent and based on their interests and aspirations regarding further education and employment.

Initially, Geography was a single study field, but with the addition of two other studies (Agricultural and Horticultural Studies and Environmental Studies) in October 1988, the field was reconstituted as Earth Studies. It is in the second category of Arts/Humanities that VCE Geography can be selected by students to form part of their program.

The VCAB development of curriculum involved three major components - study designs, assessment procedures and curriculum development support materials.

Study Designs

VCAB has developed and accredited a study design for each of the 44 studies. Most studies contain four units, designed to be taken over four semesters in Years 11 and 12. A unit of study is defined as equivalent to approximately 100 hours of study, 50-60 hours of which will be offered as formal class time. The studies have been designed so that students can enter the study at unit one, two or three. The four units of the Geography study design are listed in column 2 of Document 1 below. The normal student workload for the two-year VCE program will be 24 semester-length units of study.

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[6] VCAB-*Newsletter* - special Edition October 1987. *passim*

Assessment Procedures

Student achievement in all units will be based on satisfactory (S) or non-satisfactory (N) completion of the work requirements prescribed for each area of study (see Document 3). In units 1 and 2, in addition to reporting S or N for a unit to VCAB, schools may wish to develop an assessment policy which differentiates between students' level of performance. In such cases, Geography faculties will use the outcomes or products of the work requirements as assessment tasks. In units 3 and 4, in addition to judgements of satisfactory completion for each unit, levels of performance will be assessed by means of Common Assessment Tasks (CATs).

Course Development Support Materials (CDSM)

After the accreditation of study designs, fields of study compiled course development support material (CDSM) to assist teachers in the development of school-based courses. The Geography CDSM provides advice on interpreting the study design, in particular on developing courses and work requirements; assessment and reporting; and, course details and resources.

Participation

Figures 1 and 2 summarise current and projected enrolments of Geography students in Years 11 and 12.

	Total Year 12 students	Enrolled in Geography	No of Schools (N=625)
1985	33322	3448	263
1989	44259	3958	264

Figure 1: Geography enrolments 1985 - 1989

	Units 1 and 2	Units 3 and 4
1990	98	na
1992	95	89

Figure 2 Numbers of classes for VCE Geography based on an internal VCAB survey (January 16, 1990)

June 1983	The Review of Postcompulsory Schooling established.
May 1985	Blackburn Report published
June 1986	VCAB established
September 1986	Ministerial Statement on VCE Policy (Hon. I. Cathie)
November 1986	Existing courses incorporated into the VCE
February 1987	*Development work begins on 42 study designs including Geography*
October 1988	*Geography FOSC, reconstituted as Earth Studies FOSC, includes* *o Agricultural and Horticultural studies* *o Environmental studies* *o Geography*
February 1989	Number of students staying on to Year 12 passes 60% Phase 1 studies - Australian Studies, English, Mathematics - trialled in Years 11 and 12 at 68 schools
November 1989	Ministerial Statement (Hon. J. Kirner)
February 1990	Phase 1 studies in semester 1 & 2, in all schools Phase 1 studies, Semesters 3 & 4 in 59 pilot schools *Geography Study Design* *- Units 1 & 2 final accreditation* *- Units 3 & 4 provisional* accreditation - CATs 3 & 4 provisional accreditation
April 1990	Assessment criteria trials begin; Geography CDSM distributed to schools
July 1990	Assessment criteria triails complete
November 1990	CATs; grade descriptions; Final accreditation of Units 3 & 4
February 1991	Phase 1 & 2 studies in semesters 1 & 2 in all schools Phase 1 studies, semesters 3 & 4 in all schools
February 1992	Phase 1 & 2 studies, semesters 1 - 4 in all schools
December 1992	The new VCE certificate awarded for the first time

Figure 3 Timeline for development and implementation of the VCE

The gallery of annotated documents which follows identifies the key features of the Geography study design and places them in the context of the comprehensive curriculum provided by the Victorian Certificate of Education.

The Units

Contrasts in Living Conditions (Unit 2) is presented in Document 1 to illustrate the typical structure and characteristics of units in the study design. Each of the four units in the Geography study design comprise the following five key elements. The sections annotated on Document 2 are explicated in the corresponding paragraphs below.

A **Title:** the name of each of the four units. The title summarises the heme which has been chosen to investigate "*the geography of people and their environments*"(study design, page 1).

B **Overview:** the focus of each unit is described in an introductory paragraph. Unit 2 focuses on variations in living conditions both within and between regions. It examines the interaction of physical and human factors which produce different patterns of access to services and facilities and considers how these may vary over time.

C **Areas of Study:** establish the content of the unit. Two areas of study are specified for each unit.

D **Selecting examples for investigation:** presents the minimum number of topics through which the areas of study will be investigated. The minimum number in units 1-3 is three topics, whilst a choice of two or three topics is offered in Unit 4 (Document 1, column 3)

E **Key questions:** provide teachers with a structure for investigating each topic related to the areas of study.

Document 1: *Extract from* VICTORIAN CURRICULUM AND ASSESSMENT BOARD
- VCE Geography Study Design, Jan. 1990. *'page 4*
(ISBN 0 7306 1201 5)

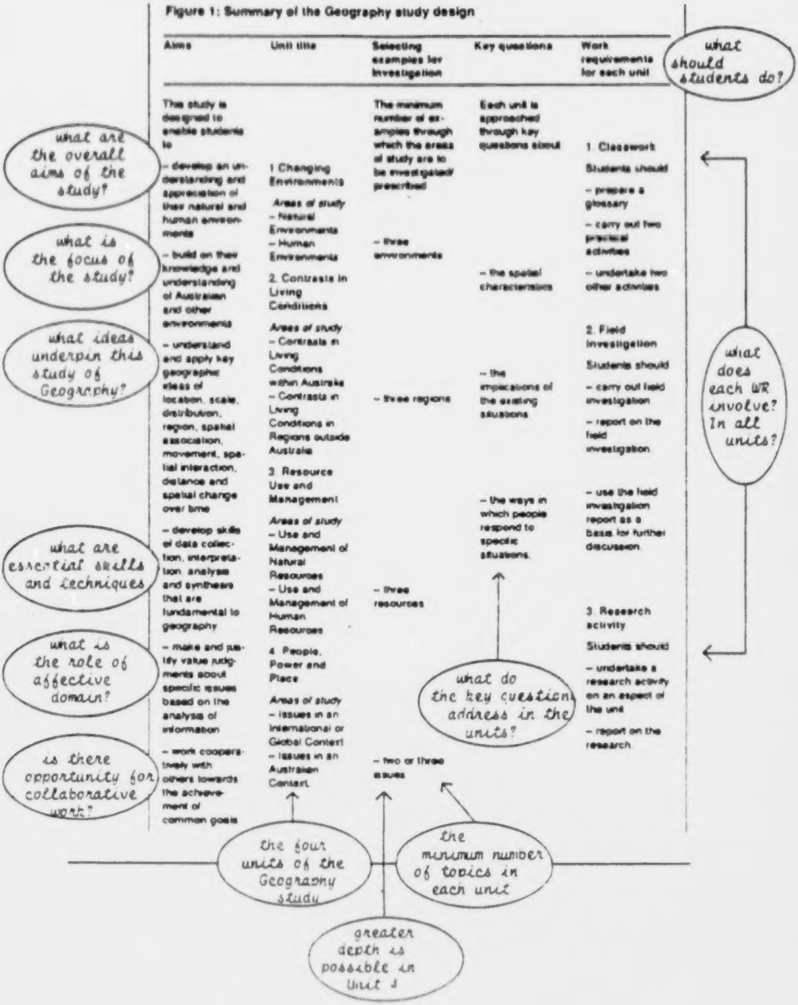

Figure 1: Summary of the Geography study design

Aims	Unit title	Selecting examples for investigation	Key questions	Work requirements for each unit
This study is designed to enable students to		The minimum number of examples through which the areas of study are to be investigated/prescribed	Each unit is approached through key questions about	
– develop an understanding and appreciation of their natural and human environments – build on their knowledge and understanding of Australian and other environments	1 Changing Environments *Areas of study* – Natural Environments – Human Environments	– three environments	– the spatial characteristics	1. Classwork Students should – prepare a glossary – carry out two practical activities – undertake two other activities
– understand and apply key geographic ideas of location, scale, distribution, region, spatial association, movement, spatial interaction, distance and spatial change over time	2. Contrasts in Living Conditions *Areas of study* – Contrasts in Living Conditions within Australia – Contrasts in Living Conditions in Regions outside Australia	– three regions	– the implications of the existing situations	2. Field investigation Students should – carry out field investigation – report on the field investigation
– develop skills of data collection, interpretation, analysis and synthesis that are fundamental to geography	3. Resource Use and Management *Areas of study* – Use and Management of Natural Resources – Use and Management of Human Resources	– three resources	– the ways in which people respond to specific situations.	– use the field investigation report as a basis for further discussion. 3. Research activity Students should – undertake a research activity on an aspect of the unit – report on the research.
– make and justify value judgments about specific issues based on the analysis of information – work cooperatively with others towards the achievement of common goals	4. People, Power and Place *Areas of study* – Issues in an International or Global Context – Issues in an Australian Context	– two or three issues		

what should students do?
what are the overall aims of the study?
what is the focus of the study?
what ideas underpin this study of Geography?
what does each WR involve? In all units?
what are essential skills and techniques
what is the role of affective domain?
what do the key questions address in the units?
is there opportunity for collaborative work?
the four units of the Geography study
the minimum number of topics in each unit
greater depth is possible in Unit 3

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Document 2: Extract from Geography study design, pp.9-10

Unit 2

Contrasts in Living Conditions

A

Access to food, water, shelter, health, education, employment and recreation are some important aspects of living conditions which contribute to the quality of people's lives. Living conditions vary within and between regions. Perceptions of living conditions differ according to needs, expectations and cultural values.

This unit focuses on the description of living conditions in both quantitative and qualitative ways. It involves an investigation of the spatial characteristics and implications of contrasts in living conditions within and between regions. Consideration is given to the interaction of physical and human factors which produce different patterns of access to services and facilities and the response of governments and other organisations to contrasts in living conditions. Factors which facilitate or hinder change in living conditions and the physical and human implications of change are also investigated.

Objectives

B

This unit is designed to enable students to

- apply terms essential for an understanding of contrasts in living conditions within and between regions
- apply key geographic ideas of location, scale, distribution, region, spatial association, movement, spatial interaction, distance and spatial change over time to contrasts in living conditions within and between regions
- develop practical skills to investigate contrasts in living conditions
- describe and analyse contrasts in people's living conditions within and between regions
- carry out and present research on contrasts in living conditions
- describe specific examples of people's attempts to change living conditions
- consider the physical and human implications of attempts to change living conditions.

Areas of study

C

1. Contrasts in Living Conditions Within Australia

An investigation of contrasts in living conditions within a region or between different regions in Australia. Suitable regions for investigation include the Melbourne metropolitan area, tropical Australia and the Mallee.

2. Contrasts in Living Conditions in Regions Outside Australia

An investigation of contrasts in living conditions within a region or between different regions in other parts of the world. Suitable regions for investigation include Southeast Asia, Peru and the Pacific Basin.

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Selecting regions for investigation D

At least three regions should be selected for investigation of the areas of study. The scale at which regions should be investigated is stated in the work requirements.

Key questions E

The following questions should guide the investigation of each selected region.

- **What are the living conditions in the region and how is the region defined?**
- **To what extent do physical characteristics of the region influence contrasts in living conditions?**
- **How can contrasts in living conditions within the region or between regions be described, measured and explained?**
- **How do economic, social and political factors explain contrasts in living conditions?**
- **What is the role of government agencies and non-government organisations in reducing inequalities in living conditions?**
- **What might be the physical and human implications of attempts to change living conditions?**

The most significant reform introduced to post-compulsory schooling by the VCE is work required learning. Teachers need to develop their courses around the work requirements. **Document 3** provides an example of a school course based on the prescribed structure of the study design. Three topics have been selected for each of the units and their locus in relation to the work requirement is indicated.

Figure 9: VCE Geography course development checklist

Example 2

Units and selected topics	Work requirements		
	Classwork	Field investigation	Research activity
1. Changing Environments		(local site)	(local environment)
Coastal environments		Port Campbell National Park	
Inner-urban environments		or	student choice of aspect of changing environment: erosion / desertification
Agricultural environments		Parwan Valley	
2. Contrasts in Living Conditions			(region /s)
Coastal town		Flinders or Lorne	
Tropical Australia	(regional / global) glossary practical exercise 1 practical exercise 2 activity 1 activity 2		
Peru			contrasting income groups in Lima
3. Resource Use and Management			(local resource)
Wilderness			
Urban health facilities		medical services in the inner core of Melbourne	
Olympic infrastructure			report on Melbourne's facilities for 1996
4. People, Power and Place			(international / global issue)
Acid rain		Port Melbourne site / tips; recycling centres	thermal power in Western Europe
Salinity		Kerang district or	
National estate		historic urban precinct	

Document 3 Extract from Victorian Curriculum and Assessment Board -Geography Course Development Support Material. 5/90

Document 4 is an example of how a work requirement can be translated into practice by a teacher planning for part of a course. Decisions have to be taken at school level and these are indicated by boxed annotation. Note that the format for report presentation is specified. The outcome of some work requirements must be presented in the form of an *annotated visual display*, an example of which is contained in **Document 5.**

Document 4: Extract from VCE Geography CDSM, p.19.

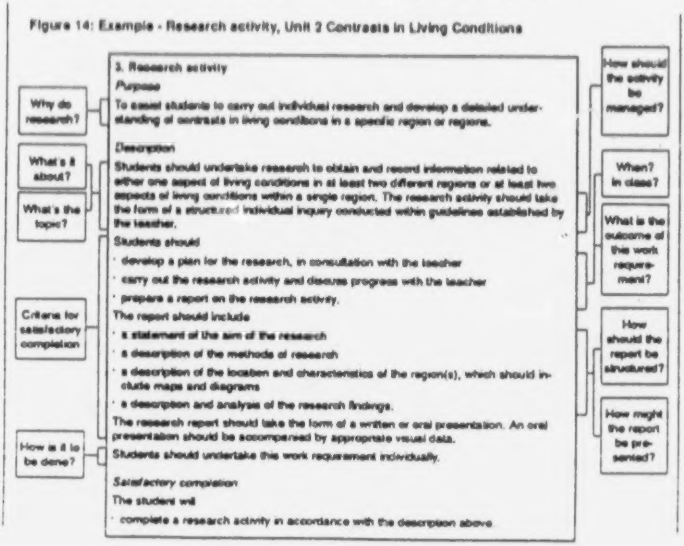

Why do research?
What's it about?
What's the topic?
Criteria for satisfactory completion
How is it to be done?
How should the activity be managed?
When? In class?
What is the outcome of this work requirement?
How should the report be structured?
How might the report be presented?

Figure 14: Example - Research activity, Unit 2 Contrasts in Living Conditions

3. Research activity

Purpose

To assist students to carry out individual research and develop a detailed understanding of contrasts in living conditions in a specific region or regions.

Description

Students should undertake research to obtain and record information related to either one aspect of living conditions in at least two different regions or at least two aspects of living conditions within a single region. The research activity should take the form of a structured individual inquiry conducted within guidelines established by the teacher.

Students should

- develop a plan for the research, in consultation with the teacher
- carry out the research activity and discuss progress with the teacher
- prepare a report on the research activity.

The report should include

- a statement of the aim of the research
- a description of the methods of research
- a description of the location and characteristics of the region(s), which should include maps and diagrams
- a description and analysis of the research findings.

The research report should take the form of a written or oral presentation. An oral presentation should be accompanied by appropriate visual data.

Students should undertake this work requirement individually.

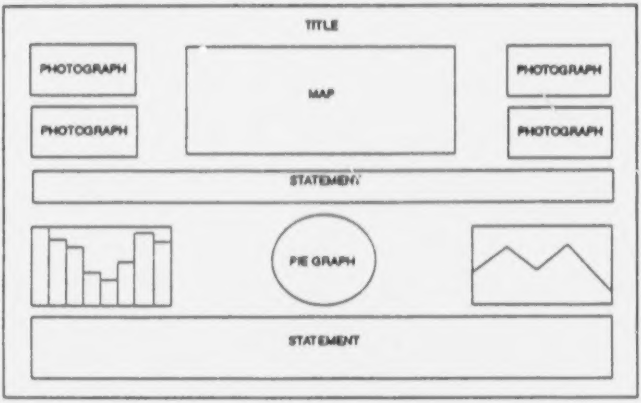
Satisfactory completion

The student will

- complete a research activity in accordance with the description above

Document 5: Extract from VCE Geography CDSM, p. 23.

Figure 16: An annotated visual display


TITLE
PHOTOGRAPH
PHOTOGRAPH
MAP
PHOTOGRAPH
PHOTOGRAPH
STATEMENT
PIE GRAPH
STATEMENT

Work requirements have an essential role in assessment; they are the sole basis for determining whether or not a student has satisfactorily completed a unit. Judgements of satisfactory of non-satisfactory completion can be made only on the basis of the work requirements specified in the study design. **Document 6** provides one possible format for teachers to maintain a record of progress in Unit 1. The record sheet parallels the structure of the work requirements.

Document 6: Extract from Geography CDSM, p. 29

Figure 18: VCE Geography work requirements record

Name: ______________________________ **Year:** ________ **Semester:** ______

Unit : 1 Changing Environments

Unit result S/N

Classwork

	Area of Study	Date Due	√	Comments
– Glossary				
– Practical exercise 1				
– Practical exercise 2				
– Activity 1				
– Activity 2				
– Satisfactory completion of the WR				

Field investigation

Environment selected for investigation: ______________________________

Requirements	Date Due	√	Comments
– Observe and record data			
– Process data			
– Presentation of report			
description of location			Report format
description of environment characteristics			
description of purpose and methods of data collection			
maps/diagrams to describe landscape change findings stated			
– Satisfactory completion of the WR			

Research activity

Environment selected for investigation: ______________________________

Requirements	Date Due	√	Comments
– Develop a plan			
– Consultations			Topic
– Presentation of a A.V.D.			
purpose of research			
description of location and characteristics of the environment			
description of change using maps, graphic data			
explanation of processes			
future management			
– Satisfactory completion of the WR			

A.V.D - Annotated Visual Display   WR - work requirement

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Document 7: Extract from Geography CDSM, p. 37.

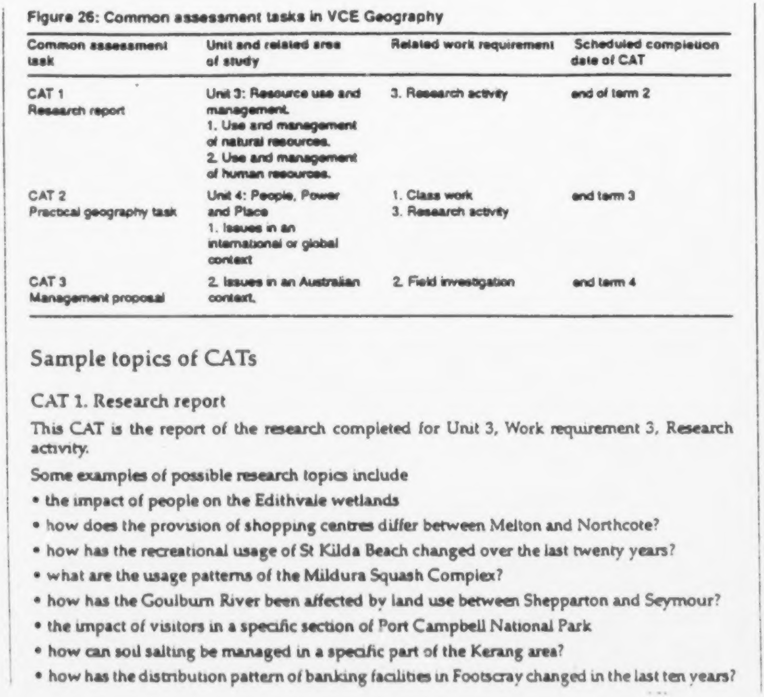

Figure 26: Common assessment tasks in VCE Geography

Common assessment task	Unit and related area of study	Related work requirement	Scheduled completion date of CAT
CAT 1 Research report	Unit 3: Resource use and management. 1. Use and management of natural resources. 2. Use and management of human resources.	3. Research activity	end of term 2
CAT 2 Practical geography task	Unit 4: People, Power and Place 1. Issues in an international or global context	1. Class work 3. Research activity	end term 3
CAT 3 Management proposal	2. Issues in an Australian context.	2. Field investigation	end term 4

Sample topics of CATs

CAT 1. Research report

This CAT is the report of the research completed for Unit 3, Work requirement 3, Research activity.

Some examples of possible research topics include

- the impact of people on the Edithvale wetlands
- how does the provision of shopping centres differ between Melton and Northcote?
- how has the recreational usage of St Kilda Beach changed over the last twenty years?
- what are the usage patterns of the Mildura Squash Complex?
- how has the Goulburn River been affected by land use between Shepparton and Seymour?
- the impact of visitors in a specific section of Port Campbell National Park
- how can soil salting be managed in a specific part of the Kerang area?
- how has the distribution pattern of banking facilities in Footscray changed in the last ten years?

The second component of assessment is assessment of levels of performance i.e., how well the student has achieved the key outcomes of the unit. The assessment of levels of performance is a matter for school decision. In Units 1 and 2 of VCE Geography, possible assessment tasks might be the product of the work requirements e.g. report on the Field investigation. For Units 3 and 4, in addition to judgements of satisfactory completion for each unit, levels of performance will be assessed by means of common assessment tasks (CATs). The set of CATs is outlined in **Document 7**. Sample topics for CAT 1 are included. CATs 1 and 3 will be assessed initially by the school and the assessment will be subject to verification. CAT 2 will be taken under test conditions and will be double marked by a central panel appointed by VCAB.

Synthesis

Document 8 provides an example of how the elements of the VCE Geography study design can be used to plan a topic for presentation in Units 3.

Key questions: this column is the only prescribed part of the suggested format. The key questions for each unit are specified in the design.

Inquiry format: inquiry learning is an integral part of the teaching of Geography in Victoria. The sub-questions do not prescribe a sequence; teachers may choose to address the key questions in any order.

Topic details identify **appropriate** content; teachers may choose to change the focus or select different sample studies provided these address the key questions. Traditionally, this column on its own and in greater detail provided teachers with their "course".

Work requirements: this section outlines the activities that students have to complete during one 16 week semester of study.

- o Classwork - the topic, Wilderness, is presented at the regional and global scales and so, most of the students' classwork will focus here
- o Field investigation - problems of access make it unlikely that teachers will use this topic to conduct Field investigation. This work requirement will therefore focus on another topic.
- o Research activity - the outcome of this work requirement is CAT 1.

Resources: examples of sources which schools are likely to possess. Teaches have been urged to avoid "reinventing the wheel".

1991 and beyond

Implementation and development beyond 1991 will test the rigour and coherence of VCE Geography. The study design is scheduled for re-accreditation in 1995.

Document 8: Extract from Geography CDSM, pp. 50-51.

Figure 31

Unit 3: Resource Use and Management

Area of study: Use and Management of Natural Resources

Region selected for investigation: Wilderness

Key questions	Inquiry format	Topic details
How can this resource be classified?	– what is wilderness? – how does wilderness vary? – why is wilderness a resource?	– perceptions, definitions, examples – tropical, polar, alpine, desert, marine – use and control of wilderness.
Where is the resource located and what is its distribution pattern?	– where is wilderness located? – what is its distribution pattern?	– World Heritage listings – Australian wilderness regions – Wilderness in Victoria – Case study of Kakadu.
What factors affect the distribution and use of the resource?	– what physical factors affect the distribution and use of this resource? – what human factors affect the distribution and use of this resource?	– ecological: climate, soil, vegetation, flora, fauna – political: zoning, policies, lobby groups – cultural: values, science, education – economic: access, resources, technology.
What are the effects of resource use on people and their environments?	– how does the use of wilderness affect people? – short-term / long-term effects	– development vs conservation: loggers, graziers, miners, recreation, hydro electricity, community health – environmental implications: flora, fauna, habitats, land degradation, aesthetics, water quality.
What factors influence the planning for resource use and management?	– what social, political and economic factors influence the use and management of wilderness in the short and long term?	Case study: Kosciusko National Park – environmental awareness – user pressure: increasing demand, carrying capacity – access: transport networks, distance, user catchment – funding – field supervision strategies – public pressure – competing land uses.
How effective are policies related to the use and management of resources?	– how are other wilderness areas managed? – are the manager [illegible] strategies effective?	Case study: proposed development of Mt Stirling

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Work requirements and associated teaching strategies			Resources
Classwork	Field investigation	Research activity	
Develop glossary			
Practical exercise 1: use topographic maps and satellite images to describe the characteristics and related uses of two wilderness areas.			
Practical exercise 2: use statistical data to describe the influence of selected factors on the use and management of wilderness.	select a particular resource at a specific site so that students can undertake a field investigation into the use and management of that resource. the results of the field investigation will contribute to the design of a plan of action for the future use and management of the resource.	– facilitate student development of individual research of the use and management of a resource in a local area or at a site other than that used in the field investigation. – the research report should be written.	– *Australian Geographic* – 'Bushfires in Southeast Australia' (Occasional Monographs in Geography) Monash University – Corranderk experiment (MMBW) – *Dictionary of Geography* – *Ecos* (CSIRO) – GAIA Atlas – *Geographical Magazine* – *Journal of Australian Geography* – Kosciusko National Park Management Plan – Land Conservation Council Alpine Report – Slide set 'The original and best of planet earth' (Wilderness Society) – STRAHLER – *Physical Geography*
	Example: develop and present a management plan for the future use of a selected alpine area.		
Activity: extended written work to describe, analyse and explain the factors which led to the development of a plan of management for Kosciusko National park.		It is unlikely that students will undertake the work requirement to investigate this resource.	
	Different resources should be used to present field investigation and research activity		
Complete glossary			

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ASSESSMENT AND REPORTING IN VCE GEOGRAPHY:

DERIVING AN ASSESSMENT TASK FROM THE WORK REQUIREMENT, FIELD INVESTIGATION.

Marilyn Wiber
Melbourne, Australia

Introduction

In 1991 the second phase of the Victorian Certificate of Education will be introduced into Victorian schools. Geography is included in this phase. The new VCB is considered to be an innovative solution to the problems which have beset post compulsory education in Victoria over the last few years, one such problem being low retention rates to year 12. The proposed VCB Geography study has incorporated many of the successful elements of the current course whilst attempting to provide a challenging and relevant learning experience for students in years 11 and 12.

Investigation An Issue And Developing A Resource Utilisation Proposal Through Fieldwork

In Year 12, units 3 and 4 of the four unit sequence are offered - Resource Use and Management and People, Power and Place. One of the common assessment tasks (CATS) by which students at the Year 12 level will be assessed, is a management proposal. This task derives from the Field Investigating work requirement in Unit 4 and involves students investigating a specific issue in the field and the spatial patterns which develop as a result of people's responses to this issue. This task will be verified by an independent assessment panel which will ensure that grades have been awarded consistently between schools.

Address for correspondence: Ms. M Wiber,Head of Geography, Mentone Girls' Grammar School, 11 Mentone Parade, Mentone 3194, Victoria, Australia.

Details Of The Task

The study design specifies that the... task requires students to formulate a management proposal based on a teacher directed field investigation at a site or in a small region. The management proposal justifies a way of dealing with a specific issue related to the site. Students will

.observe and record data at a specific site or in a small region
.process the data collected
.use relevant information from the site and other resources.
.develop a proposal to deal with the issue.
.use appropriate visual techniques to illustrate the proposed approach to deal with the issue.
.present the proposal.
.discuss the strengths and weaknesses of the proposal.

In presenting the proposal, students will use appropriate geographic techniques to

.state the nature of the issue
.describe the location and distribution of the issue
.identify the different issues involved
.outline a way of dealing with the issue.

The proposal will take the form of a written presentation of about 1000 words. The written statement will be accompanied by data in a variety of formats; for example, tables, charts, maps, graphic illustrations, photographs, or an annotated visual display: or a three dimensional model.

At Mentone Girls' Grammar School this CAT was trialled with 20 Year 11 students. Although the trial group lacked the additional year's experience it was considered that their geographic knowledge was sufficient to indicate if the task could be successfully undertaken by year 12 students. Figure 1 shows the task sheet distributed to the students.

Mentone Girls' Grammar School
Fieldwork For Cat 3: Management Proposal

The fieldwork undertaken during the day will examine: The future use of one rubbish tip site in Melbourne. This issue has arisen because of the conflicts occurring in some suburbs at present over the planned development of an existing (or proposed) tip site.

You Are Required To Develop, Outline And Justify A Management Proposal For Dealing With The Issue.

PURPOSE : The purpose of this CAT is to assess the following objectives:

(a) Describe the location and distribution of a specific issue.
(b) Use a range of geographic techniques to describe the physical, social, political and economic factors involved in the development of this issue.
(c) To analyse the effect of this issue on people and their environments.
(d) To describe ways in which people respond to this issue.
(e) To describe the spatial patterns which develop as a result of people's responses to specific issues.

DISCRIPTION : The management proposal will be the product of a field investigation of an issue related to people and their environment. You are to present a management proposal for this specific issue. The proposal should be described and justified using data collected from your field investigation.

In presenting this proposal, you should use geographic techniques to

- State the nature of the issue.
- Describe the location and distribution of the issue.
- Identify the different interests involved in the issue.
- Outline a proposal to deal with the issue.

The proposal is to take the form of a written component of about 1000 words supported by * an annotated visual presentation
OR * a three dimensional physical model.

Appropriate forms of visual representation can include maps, photos, videotapes, slides, sketches etc.

Figure 1. CAT 3 : Student instruction sheet

Trialling The CAT

The issue chosen for investigation was how should land be used after the restoration of rubbish tips or sanitary landfill sites. This issue was particularly suitable because of landuse conflicts occurring in some parts of Melbourne over the planned development of an existing or proposed tip site.

Newspaper articles headlines such as "Sunshine Council to turn rubbish to power"; "Anger over Springvale tip proposal", appeared in the press and provided food for thought. Most students were aware of the amount of waste generated by Melbourne's population , however few had reflected on what would happen when the rubbish tips were full and "land" became available for public use ...if, in fact, it could be used at all.

The purpose of the CAT was to consider the issue of future use of restored land at several tips which had lives of between 12 months to 5 years.

A range of geographic techniques was undertaken to describe the physical, social, and economic factors involved in the development of the issue ie how did the council, as well as interested members of the public, propose the tips to be developed in the future and how did these plans compare with those suggested by the students themselves.

In investigating this issue the students analysed

.the effect of this planned development on local residents and the environment
.described ways in which people responded to this issue
.described the spatial patterns which developed as a result of the proposed planning.

As a result, the CAT became a management proposal based on the considered geographical judgements of the students themselves. The girls were able to formulate ideas and strategies based on data collected and justified during their fieldwork. The proposal had to be justified by evidence collected during their fieldwork.

The trial of CAT 3 took place during 3 to 4 weeks of May, 1989. It was unfortunate that the students' semester examinations occurred early in June and so time was restricted : it is presumed that about 6 weeks would be a suitable time allotment in a year 12 course. The fieldwork took one and a half days. This was quite a large amount of time, however the tips to be investigated were some distance from the school and travelling time had to be considered.

Three tip sites were selected. One tip at the suburb of Sunshine closed at the end of 1989 and so was nearly full when the students undertook the investigation ; one site at Williamstown had been landscaped for some time and the third sanitary landfill site at Springvale will be ready for future developments within the next few years.

The fieldwork itself involved basic data gathering techniques with which all students were familiar. The girls had to observe, record data, process this data, develop a proposal, then present this proposal by means of a written report and a visual presentation. Most girls chose to draw a future landuse map and accompany this with a graphic and /or photographic display. A considerable amount of teacher preparation was required for this task. Permission from the council had to be gained for the students to visit the tip sites as conditions are not ideal and large numbers of heavy trucks use these tips every day. It was fortunate that the staff at the local shire council offices were very helpful and made the task considerably easier.

To complete this CAT, two activities were actually undertaken. One was to conduct fieldwork at a range of sites. The other was the future planning of the site and this proved to be the more difficult. The students felt that without any townplanning training they were in no position to predict what might be developed in the future. However, whilst these concerns were valid, the girls were able to access other information. The city council staff willingly provided city engineers to explain the intricacies of normal landfill operations and what were the likely environmental problems such as leachate generation, compaction and sinkage, dust, methane gas and litter. The geology of the area was explained and a contour map of the site provided an idea of the possible types of landuse. eg Sunshine tip site is flat and likely to be used for recreational activities, such as soccer, football, a BMX track and a pigeon club. The Springvale site is quite hilly and the undulating mounds are part of the proposed future landscaping; picnic and BBQ grounds, bicycle paths and playgrounds are all suggested activities here. The tip site managers, council landscape architects and recreation officers all availed themselves at the tip sites which enabled the students to put the experts ' suggestions into practice. This philosophy of involving the community is one which is of particular relevance to VCE studies.

One of the significant issues that evolved out of fieldwork at tip sites was the realisation that some sites may harness energy through the production of methane gas. This has developed as an important issue in Sunshine where the Council estimates that it could earn about $3 million a year from methane production at its tip site. The girls had to consider this gas reclamation in their planning reports and many proposed tapping in to the gas stream to operate gas lighting for a proposed park etc. As well as observation, sketching and recording information from interviews with council staff, residents using the tip were surveyed by interview on site. This provided students with another insight into the issue concerning future landuse. Surveys of residents in nearby streets also provided data.

The visit to the Williamstown site provided an illustration of possible future landuse as much of the Williamstown site has been landscaped already. These are former quarry sites which have been used for sanitary landfill and which have been changed to resemble the former environment of the area. The planting of native species which belong to this area has been so successful that over 75 species of birds have returned to this area in the last 18 months.

Further data was perused at school before an attempt at drawing a landuse map was made. Local Government Area statistics provided an overview of the population characteristics of the area. Street directories which gave an up to date spatial pattern of the landuse in the area were particularly valuable for indicating the recreational resources available, necessary if students were to decide on the possible types of recreational facilities the suburb lacked and which might be possible to establish on the old tip site.

Therefore, with an idea of engineering expectations, landuse requirements, landscaping possibilities and residents' attitudes, the students were able to use a base map of the sanitary landfill site on which to base their management proposal. This was presented in written form supported by maps and graphics.

Disscussion Of The Students' Proposal

The proposals were all recreation based. This was primarily because the council engineers suggested this would be the easiest form of landuse, and, as well, old tip sites investigated had all been turned into recreational reserves. The following paragraphs are quotes from student's work:

1. One response relating to Springvale tip.."It is not possible to build on an old tip site as the land is highly unstable. The land is subject to "slumping" as the rubbish compresses and decomposes. The ground is unstable building ground and would cause the buildings to crack and possibly to collapse altogether. It is also not possible to install sewage and water services as the pipes underground would also be subject to "slumping" and therefore bursting and leaking. The land can only be used for passive recreational purposes and since the land

on this particular site has natural undulations, it makes it all the more appropriate for recreational purposes. The extraction of the methane gas to be used as a fuel from this particular tip site is also out of the question, as this gas is too "wet" and is hard to light. It is possible to convert this "wet" gas so that the area could have gas lights - the fuel supply lasting forty to sixty years. However this is an expensive process which the City of Waverley , who owns the tip site, cannot afford. Therefore the methane is left to escape naturally from the decomposing rubbish. The reçreational facilities already located within a three kilometre radius of the tip include four golf courses, a BMX bike track, a major netball and tennis complex, a few community centres and public halls and multiple reserves catering for football, soccer and cricket. Therefore on this tip site there is no need for another golf course. The Springvale area is well catered for by many reserves and football ovals nearby. The Springvale tip site could become the first one of a chain of parks in the Springvale road area. Approximately 3/5 of the tip should become parks for passive recreational use; 2/5 should become a motorbike track. Contained within the park should be a skateboard ramp which has long been requested by children of the area. The ramp could be located on the other side of the park away from the main BBQ and picnic area to reduce the noise. ......"

2. This is part of a response relating to Sunshine tip.."After considering Sunshine's community recreational needs and especially the factors associated with building parks and buildings on previous tip sites, 1 finally proposed a future management plan which would satisfy these factors. A man who was interviewed from Essendon stated that the tip 'should be turned into a wood', others from North Sunshine said it should be 'parklands for the people'. A Werribee resident commented 'that it should become a BBQ area, with ovals and lakes.' 1 also took these factors into consideration when proposing a future development. The proposal is in two areas: the reclaimed land and the present tip combined with the industrial waste land. The reclaimed land holds more active recreation because the tip has had more time for the rubbish to decompose and settle, so the land is more stable. It consists of a football oval, BMX track, softball, lawn bowls and a huge oval for hockey. There could also be a car park, clubhouse and hall. Trees found in small clusters around the reclaimed area are to provide a more natural environment. A definite track has been provided..not for vehicles..The other area consists of other industrial land and most of the present tip site. 1 have created an urban forest because Sunshine has only recreational sporting fields. There is a track which explores the urban forest. The

southern part is used for passive recreation..."

Conclusion

After trialling certain points became obvious. The students had difficulty in using the full range of data in the time allowed. This could easily be overcome with future planning. It was more satisfactory to use a 'site' rather than a specific 'issue' in the management proposal, although in this trial, two sites were chosen although only one had to be developed as the management proposal, and the issue of future use of the land was still debated. Maps and photos were not integrated into an annotated visual display and this could be improved with more stringent teacher direction. One of the main problems involved the students' application of scale and senior students still found it difficult to accurately represent a variety of landuse types, both sporting and passive recreation, onto a base map. Fstimating area for playing fields and picnic areas was not realistically done. eg students frequently included too many features on their reclaimed land or depicted the size of swimming pools equal to that of sporting ovals. Some of the difficulties were overcome through access to reference books and street directories. The pro#lems of 'what to build' were generally overcome by the engineers' talks at the fieldwork site.

As well as a written comment (descriptive assessment), the task was assessed using the grade criteria set out in Figure 2. At the time of writing the criteria were in draft form and may be subject to further modification.

Examples of teacher's written comments included;

a. "Although there is mention of the need for a golf course, some summary of the types of landuse already would have reinforced the argument for your proposals. Lack of scale makes the golf course size questionable; your fairways are badly planned. Apart from the question of feasibility, the procedure for tip development seems OK and the development over time seems logical."

b. "An excellent effort. Provided extensive background information obtained from discussion with tip engineers etc. Good observation skills and use of street directory to elaborate on facilities present. The methane argument is well outlined. Use of 'on-site' data is excellent. Proposal feasible and well thought through. Good to use suggestions

---

Criteria for the award of grades

Description of the issue in its spatial context

- analysis of the geographic characteristics of the site or region
- description of the distribution of the factors involved in the development of the issue
- discussion of the different interests involved in the issue
- communication of information about the issue in its spatial context using a range of geographic techniques

Discussion of the implications of the issue for the management of the site

- description of the effect of the issue on people and their environments
- description of how people have responded to the issue
- description of the spatial patterns which have developed
- incorporation of the data collected in the field to identify a range of options for the management of the site.
- communication of information about the implications of the issue for the management of the site using a range of geographic techniques

Formulation of the proposal

- incorporation of the site analysis to identify a preferred option for managment of the site.
- relationship of the proposal to the resolution of the issue
- description of the strategies for implementing the proposal

Presentation of the proposal

- use of the conventions of report writing to the written component of the proposal
- use of the appropriate geographic conventions in presenting the graphic component of the proposal

---

Figure 2 Extract from VCAB-Geography Study Design

of residents in proposal. Appropriate landuse. "

The above written assessment will not be used when VCE is in place in 1992. Letter grades will be awarded based on the assessment criteria listed in Figure 2. Grade descriptors explaining each grade will be provided by VCAB.

Overall, the experience was a particularly positive one for the students, giving them the opportunity to use geography in the field. They enjoyed the variety of fieldwork techniques and could see the relevance of the data collection methods to produce a feasible planning document.

Appendix

Other examples for Field Investigation

Alternative issues for investigation and development of similar management proposals might include:

- the development of a quarry
- the location and site of a toxic chemical dump
- subdivision of rural land for residential development
- development of a tourist complex adjacent to a national park
- usage impact in an alpine area
- the implications of redeveloping a shopping centre

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346

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Mr. WONG King-hung, Ning Po No.2 College, Shun Tin Estate, Kwun Tong, Kowloon.

Dr. Betty YAU lai-ling, School of Education, Chinese University of Hong Kong, Shatin, N.T., Hong Kong.

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THE HIGH SCHOOL STUDENTS' GEOGRAPHICAL COMPETITIONS IN POLAND

by

Maria Magdalena Wilczyńska-Wołoszyn

University of Warsaw, Poland

Paper presented to the Regional Conference

of the International Geographical Union

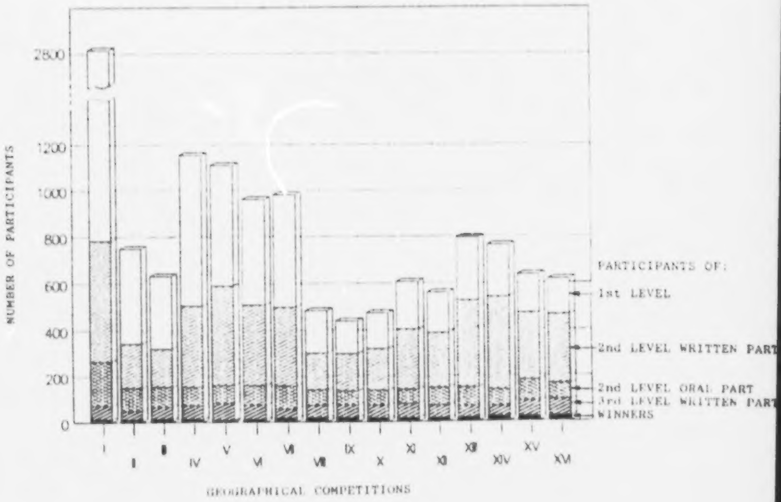
Hong Kong, August 1990

Competitions in the knowledge of different subjects have been held in many countries since the last century, but an institutional form was given first in Poland about forty years ago. Geographical competitions have been organized since 1974. Due to sixteen-year period of organizing and developing the Competition and an experience won by a management team brought precious, worth publishing remarks. Geographical competitions are sponsored by the Ministry of National Education, while the organizer responsible for a substantial part is the Polish Geographical Society. Competitions are conducted by the Central Committee (see Annex 1) and local committees represented by geographers, geologists and experienced teachers. The Central Committee compiles questions for all levels of the competition, protecting the secrecy, it verifies the results of the contest of the second level and organizes the contest of the third level that comprises a nation-wide population. There are eleven local committees named by the Central Committee, operating in every district of Poland according to the administrative division of the country (see Annex 2). The Local Committees' tasks are to deliver information booklets of the competitions published by the Central Committee to all high schools within their district as well as to organize contests of the first and the second levels.

Geographical competitions are directed to the high school students, who are interested in geography and are following changes in contemporary geographical environment as well as current social, political and economic processes in Poland and in the world. They have to become familiar with the literature presented each time in the information booklet of the competition and above all to learn the information included in the entire course of geography in high schools of Poland. A wide range of knowledge required in the competition eliminates unfortunately a considerable part of students attending technical schools, which do not have geography as a subject in the program of education, or geography is taught on a very small scale. On the other hand, the competition is very popular among high school students; those participating in the competition each year represent from 25 to 40 per cent of high schools in Poland.

A great number of participants in the First Geographical Competition (see Table 1) proved that the competition met the

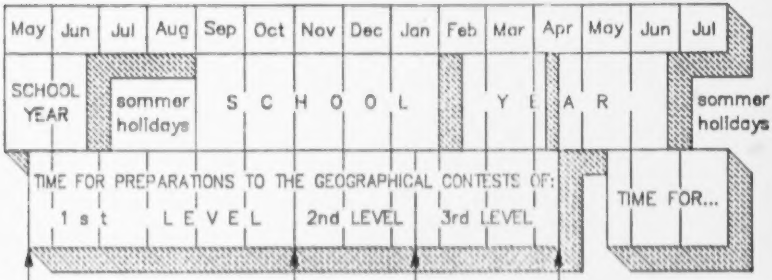
TABLE 1. NUMBER OF GEOGRAPHICAL COMPETITIONS PARTICIPANTS IN 1974-1990



interests of young people. This enthusiastic participation did not, however, mean the complite preparation of students to the competition. Requirements placed on the participants of the competition, especially as to the range of their skills, astonished both teachers and students, which resulted in the rapid fall of the students' participation in the Second Competition while the percentage of high school participation fell relatively much less (from over 60 to 56 per cent). In the following years the state has been fluctuating according to changes of participant privileges and certain not beneficial changes in the course and the plan of teaching. Nowadays the participation of high school is fluctuating within the limits of 30 to 40 per cent and from 600 to 800 students participating in the competition each year.

The students' knowledge is tested in a three-level competition. The Contest of the First Level starts by sending information booklets with the competition questions and requirements of particular levels of the Competition in May (see table 2) so that the students may concentrate on answering the questions in a period free of hard learning (i.e. summer holidays and the beginning of the school year). In a contest of this level participants write papers based on the results of their observations and measurements made in the surroundings of their schools and homes. The students' papers with the teacher's remarks enclosed shall be sent by schools to local committees till the 30th of October. Local Committees evaluate the papers and on this base they qualify the best students to the contest of the second level.

TABLE 2. STUDENTS' WORK SCHEDULE IN A SCHOOL YEAR AND IN A GEOGRAPHICAL COMPETITION


May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
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SCHOOL YEAR
sommer holidays
S C H O O L Y E A R
sommer holidays
TIME FOR PREPARATIONS TO THE GEOGRAPHICAL CONTESTS OF:
1 s t L E V E L
2nd LEVEL
3rd LEVEL
TIME FOR...

sending a list of contests' problems to schools

contest of 1st level

contest of 2nd level

contest of 3rd level

The Contest of the Second Level (in each district) are held in January on terms of controlled independence. It consists of two parts: written and oral. An evaluation of the results reached by the students is conducted by district committees according to the standard instruction worked out by the Central Committee. Contest results are verified by the Central Committee. Participants who achieve the best results pass to the Contest of the third level. The Contest of the Third Level (nation-wide) is held in April and has also two parts written and oral. This Contest is conducted by the Central Committee on terms of controlled independence. The best students selected from this group gain the title of prize-winner.

A direct benefit for students participating in the competition is the right to have the highest grade for geography on the high school graduation certificate, and the right not to have to pass entrance exams for those applying to the university especially to geography and geology departments. These privileges are not exercised by all participants of the Competition. According to the Competition documentation approximately 45 per cent of prize-winners choose studying geography and only 15 per cent study geology. A majority of students treat their participation in the contest as a way of testing their interests and abilities. This attitude is manifested in students' answers on questionnaires polled by the Central Committee in 1977 and 1984. One of the answer reads: "During my preparation to the Competition I had to study deeply certain geographical problems. It showed me the beauty of geography, and further on allowed me to make a conclusion that every science hides a great amount of questions and that every science may deliver an incommensurable personal satisfaction and fascination. Revealing consecutive charts you can witness more and more new phenomena, nuances, a power of nature and human logic, new perspectives for the future and many other problems that man has never before dreamt of. And at least for these reasons it was worth participating in this most beautiful competition". Another student wrote: "First I became confident in myself, second I learned to think... Moreover my participation in the Competition, and particularly successes constituted for me the most important incentive to become sure that I will continue studies. Now I can not simply imagine myself as a student who finished his education at the high school level". Concerning the meaning of the competition in a

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further education one of the prize-winners wrote: "Studying was made easier as a result of my experience gained during my preparation to particular levels of the Competition. For example, doing such work as in the first level enables me now to complete designs. On the other hand the ability to use catalogues in libraries, paying attention to the large amount of information and finding the most important, was learned during my preparation to the second and third levels. Besides the consecutive, levels of the Competition taught me how to pass other exams, enabled me to be trained and to experience an atmosphere of preparation to exams". These feelings of prize-winners are confirmed by questionnaires sent to universities. The opinions of students' advisors are positive, stressing good knowledge, good preparation for the studies, an independence in bringing out opinions as well as an ability to work independently. These opinions show that meetings through competition of ambitious young people with similar interests indicates the way for achieving important educational and teaching values.

Benefits deriving from the Competition are not only limited to the students. So far the competition activities have enabled to present a direct influence on methods of teaching geography and on requirements towards students. Preparing and distributing competition questions that tested not only the knowledge but also the skills of students gave teachers several patterns for a direct implementation. Many teachers were also inspired to searching their own solutions. Summarizing, the Competitions contributed and are still contributing in bringing up the level

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of teaching geography in high schools. An aid in this work is constitueted by information booklets with a current, interestingly compiled, valuable geographical bibliography published by the Central Committee, yearly elaborated summary of competition's questions and its results published in "Geography in School", and special editions of competition's information edited every few years. A joint work, lasting several years of a group of the Competition enthusiasts and sympathizers concentrated in committees helped also significantly to consolidate a geographers' society divided so far into teachers and theoretical specialists. A common goal, an atmosphere of concern about the level of the Competition and stressing the appropriate position of geography in high schools liberated a feeling of community and revealed a possibility of cooperation.

This standard for the entire country system of tests conducted on similar terms creates a unique experimental base. Students representing different social backgrounds, prepared by different teachers, are answering the same questions, in the same time and are evaluated according to the same detailed instruction. A research of results gained by this type of students' groups brings manifold input for the final conclusion.

The competition's documentation analysis shows that students of various social backgrounds participate in the Geographical Competition. About 50 per cent participating in the Competition are students living in big cities (more than 100.000 inhabitants), about 35 per cent are of moderate town origins (10.000-100.000 inhabitants), and about 15 per cent used to live in small villages. So, this is a percentage more or less

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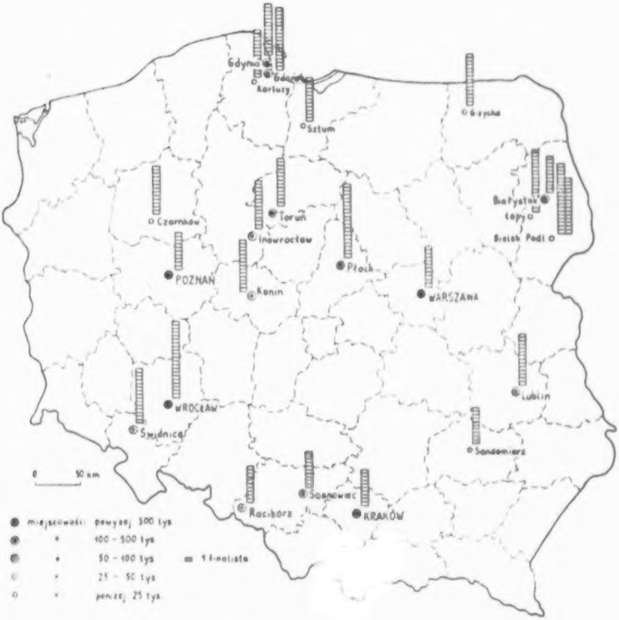
adequate to the number of population living in these groups of towns. It is interesting that this percentage does not change until the Competition of the third level (nation-wide range). It may be the evidence either of a relatively slim influence of the participants' background on their interests and on their level of geographical knowledge or of a balanced influence of various factors.

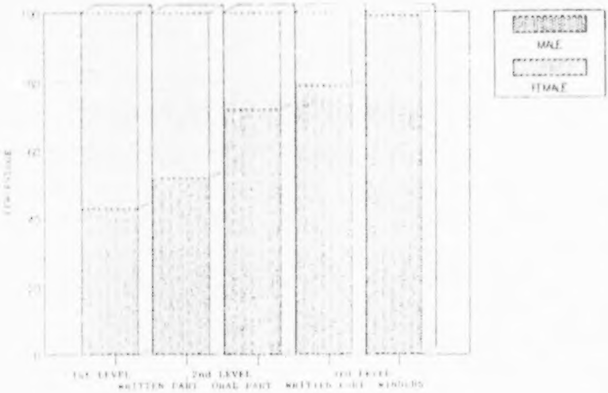
However, a distinct interaction of particular schools or teachers is evidently noticable. There are schools, which students participate in the competition every year and there are others, which students have never participated in the competition. This is also excellently visible in the comparison of schools which students achieved results good enough for passing to the last leve of the competition. Among several hundred high schools in Poland there are only several teens, which have had more than 10 prize-winners of the Geographical Competition during the sixteen years of the Competition activity (Table 3). You may notice that these schools are situated in educational centers of various scale. For example, in a city of one million inhabitants like Warsaw, there is only one school among more than 50, while in Bielsk Podlaski (20.000 inhabitants) the only two high schools may be proud of such good results. Undoubtedly this is the contribution of teachers who were able to arise geographical interests in their students and gave them a deep knowledge and abilities within this field. A few of them brought up even many prize-winners; for example Mr. Lazopoulos from Wrocław has had 10 prize-winners among his students, and Mr. Gmerek from Konin - 7 prize-winners.


Gdynia
Gdańsk
Kartuzy
Sztum
Giżycko
Białystok
Łapy
Bielsk Podl.
Czarnków
Toruń
Inowrocław
Płock
POZNAŃ
Konin
WARSZAWA
Lublin
WROCŁAW
Świdnica
Sandomierz
Racibórz
Sosnowiec
KRAKÓW
0 50 km
miejscowości powyżej 500 tys
" 100 - 500 tys
" 50 - 100 tys
" 25 - 50 tys
" poniżej 25 tys
1 finalista

Ryc. 3 Szkoły z co najmniej 10 finalistami olimpiad geograficznych w okresie 1974-1990 /B.Kicińska/

An interesting subject of research may be also a clearly noticeable differentiation in the competition results between students of different sex (see Table 4). At the beginning balanced participation of both student groups in consecutive levels is altering in favor of males and this selection is happening the most clearly during a written test. It is difficult without detailed research to state, whether reasons derive from differentiation of intelectual development of young people at this age, or perhaps this way of testing knowledge is more beneficial for a male's psyche.

TABLE 4. PARTICIPANTS IN PARTICULAR LEVELS OF THE COMPETITION BY SEX



However, the most interesting seems to be the qualitative study of difficulties which are derived from solving various types of problems by students at the highest level of the Competition. Young people who reach this level are quite homogeneous in intelectual abilities. At the lower levels of the Competition students less capable, less ambitious, and less persistent as well as with a lower psychologic immunity drop out. Selected in this way group of competitors , whose results may be recognized as the maximum of students' learning abilities in the field of geography using current programs and teaching materials. Researching this group you may assume with a high probability that their difficulties will basically originate in specifics of geography as a teaching subject or essential and didactical mistakes made in teaching materials, which students study. These research fields are especially interesting both

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from a practical point of view and research abilities of didacticians of geography. Materials collected in geographical competitions have been utilized in research programs for many years. On the base of these materials a doctor's thesis as well as many master degree theses were elaborated. Research results are interesting and many times astonishing. Partly they were published and presented at conferences of the International Geographical Union in Tokyo and Paris.

Polish experiences in organizing geographical competitions indicate manifold advantages that they give to students, teachers, schools as well as to geography as a teaching subject. These benefits are reached relatively small costs thanks at well managed work of people of good will. This is an idea worth promoting, and it would be very challenging for this contest to become a competition of an international level. International competitions with participation of high school students have already been organized in mathematics, physics and chemistry for many years. There are no limitations so that similar concompetitions would be held in geography. In connection with these facts and on behalf of the Central Committee of the Geographical Competition in Poland I would like to move a motion to discuss in the School Geography Committee of the International Geographic Union the possibility of organizing an International Geographical Contest.

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Annex 1

THE MEMBERS OF THE CENTRAL COMMITTEE OF HIGH SCHOOL STUDENTS' GEOGRAPHICAL COMPETITION IN THE SCHOOL YEAR 1990/1991

1. **Professor Dr. Anna Dylikowa** (since 1974) - President of the Central Committee of High School Students' Geographical Competition;
   Specialization: geomorphology, University of Łódź;
2. **Professor Dr. Jan Flis** (since 1974) - Vice-President, member of the Questions Preparation Committee, Chairman of the Questions Preparation Committee (1974-1985);
   Specialization: physical geography, cartography, Pedagogical High School in Cracow;
3. **Docent Dr. Andrzej Werwicki** (since 1976) - Vice-President, Chairman of the Verification Committee;
   Specialization: geography of settlement, Polish Academy of Science;
4. **Mrs. Małgorzata Sikorska** (since 1984) - Organizing Manager, member of the Questions Preparation Committee and the Verification Committee;
   Teacher of geography in a primary school in Warsaw;
5. **Mrs. Bożena Kicińska** (since 1988) - Scientific Secretary, member of the Questions Preparation Committee and the Verification Committee;
   Specialization: climatology, University of Warsaw;
6. **Dr. Maria Bac-Moszaszwili** (since 1985) - member of the Central Committee, member of the Questions Preparation Committee and the Verification Committee;
   Specialization: geology, Polish Academy of Science;
7. **Docent Dr. Zdzisław Batorowicz** (since 1974) - member of the Central Committee;
   Specialization: didactics of geography, University of Łódź;
8. **Mrs. Irena Berne** (since 1974) - member of the Central Committee, member of the Questions Preparation Committee and the Verification Committee;
   Retired teacher of geography in a high school;
9. **Docent Dr. Roman Chlebowski** (since 1988) - member of the Central Committee, member of the Verification Committee;
   Specialization: geology, Polish Academy of Sciences;
10. **Professor Dr. Maria Czekańska** (since 1974) - member of the Central Committee;
    Specialization: didactics of geography, Adam Mickiewicz University in Poznań;
11. **Dr. Roman Domachowski** (since 1985) - member of the Central Committee, member of the Questions Preparation Committee and the Verification Committee;
    Specialization: didactics of geography, economic geography, University of Warsaw;
12. **Professor Dr. Piotr Korcelli** (since 1988) - member of the Central Committee;
    Specialization: economic geography, Polish Academy of Science;
13. **Docent Dr. Alicja Kostrowicka** (since 1982) - member of the Central Committee, member of the Verification Committee, representative of the Central Board of the League for Nature Protection;

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Specialization: geography of tourism, didactics of geography, University of Warsaw;

14. **Mr. Andrzej Kubrak** (since 1989) - representative of the Ministry of National Education;
15. **Mrs. Elżbieta Lewandowska** (since 1974) - member of the Central Committee, Scientific Secretary in 1974-1979 and 1982-1987, member of the Verification Committee; Teacher of geography in a high school in Warsaw;
16. **Dr. Danuta Licinska** (since 1974) - member of the Central Committee, member of the Verification Committee; Specialization: didactics of geography, Teachers' Training Centre;
17. **Docent Dr. Teresa Madeyska** (since 1982) member of the Central Committee, Chairman of the Questions Preparation Committee and the Verification Committee; Specialization: geology, Polish Academy of Science;
18. **Dr. Marianna Nowak** (since 1982) - member of the Central Committee; Specialization: didactics of geography, Maria Curie-Skłodowska University in Lublin;
19. **Dr. Maria Pelczar** (since 1986) - member of the Central Committee, member of the Questions Preparation Committee; Specialization: cartography, University of Łódź;
20. **Mr. Jacek Potocki** (since 1990) - member of the Central Committee, past prize-winner in the Geographical Competition - representative of students; Student of geography, University of Wrocław;
21. **Docent Dr. Ludmiła Roszko** (since 1982) - member of the Central Committee; Specialization: geomorphology, Mikołaj Kopernik University in Toruń;
22. **Professor Dr. Marcin Rościszewski** (since 1988) - member of the Central Committee, Specialization: economic geography, Polish Academy of Science;
23. **Dr. Jan Rzechowski** (since 1982) - member of the Central Committee; Specialization: geology, State Institute of Geology;
24. **Mr. Waldemar Sroka** (since 1975) - member of the Central Committee, prize-winner of 1st Competition - representative of students (1975-81); Specialization: phisical geography, geology, University of Wrocław;
25. **Dr. Anna Strzelczuk-Ogulewicz** (since 1980) - member of the Central Committee, member of the Verification Committee; Specialization: environmental protection, Ministry of Environmental Protection and Natural Resources;
26. **Dr. Andrzej Suliborski** (since 1984) - member of the Central Committee, member of the Questions Preparation Committee; Specialization: economic geography, University of Łódź;
27. **Mrs. Maria Szemeta** (since 1974) - member of the Central Committee; Specialization: physical geography, Teachers' Training Centre;

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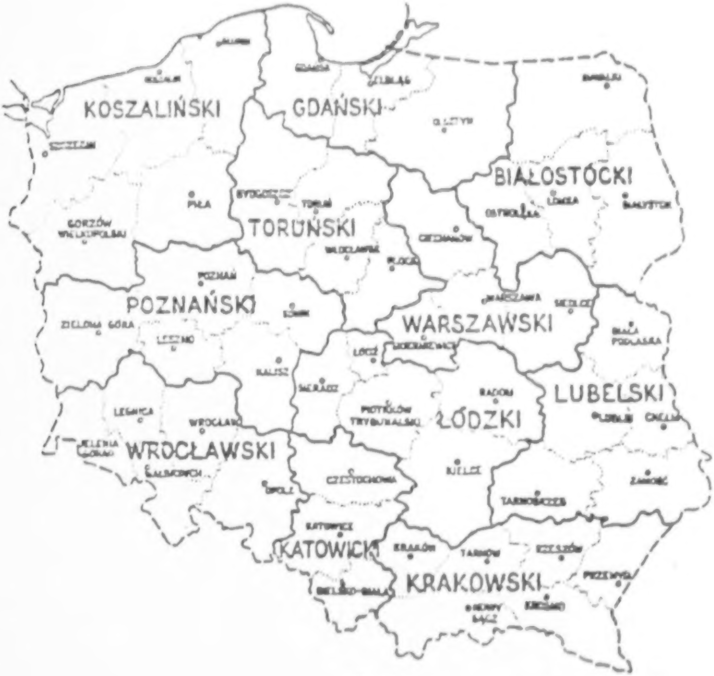
28. **Dr. Teresa Tarnacka** (since 1985) member of the Central Committee;
Specialization: economic geography, Teachers' Training Centre;

29. **Docent Dr. Krystyna Turkowska** (since 1974) - member of the Central Committee;
Specialization: geomorphology, University of Łódź;

30. **Dr. Maria M. Wilczyńska-Wołoszyn** (since 1974) - member of the Central Committee, Organizing Manager in 1974-1984, member of the Questions Preparation Committee and the Verification Committee, representative of the Central Board of the Polish Geographical Society;
Specialization: didactics of geography, hydrography, University of Warsaw.

Annex 2

DISTRICTS OF GEOGRAPHICAL COMPETITIONS IN POLAND


KOSZALIŃSKI
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POZNAŃSKI
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WROCŁAWSKI
KATOWICKI
KRAKOWSKI
GDAŃSK
ELBLĄG
OLSZTYN
PIŁA
GORZÓW WIELKOPOLSKI
BYDGOSZCZ
TORUŃ
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PŁOCK
CIECHANÓW
OSTROŁĘKA
ŁOMŻA
BIAŁYSTOK
POZNAŃ
ZIELONA GÓRA
LESZNO
KALISZ
WARSZAWA
SIEDLCE
BIAŁA PODLASKA
ŁÓDŹ
SIERADZ
PIOTRKÓW TRYBUNALSKI
RADOM
LEGNICA
WROCŁAW
JELENIA GÓRA
WAŁBRZYCH
OPOLE
CZĘSTOCHOWA
KIELCE
ZAMOŚĆ
TARNOBRZEG
KATOWICE
BIELSKO-BIAŁA
KRAKÓW
TARNÓW
RZESZÓW
PRZEMYŚL
NOWY SĄCZ